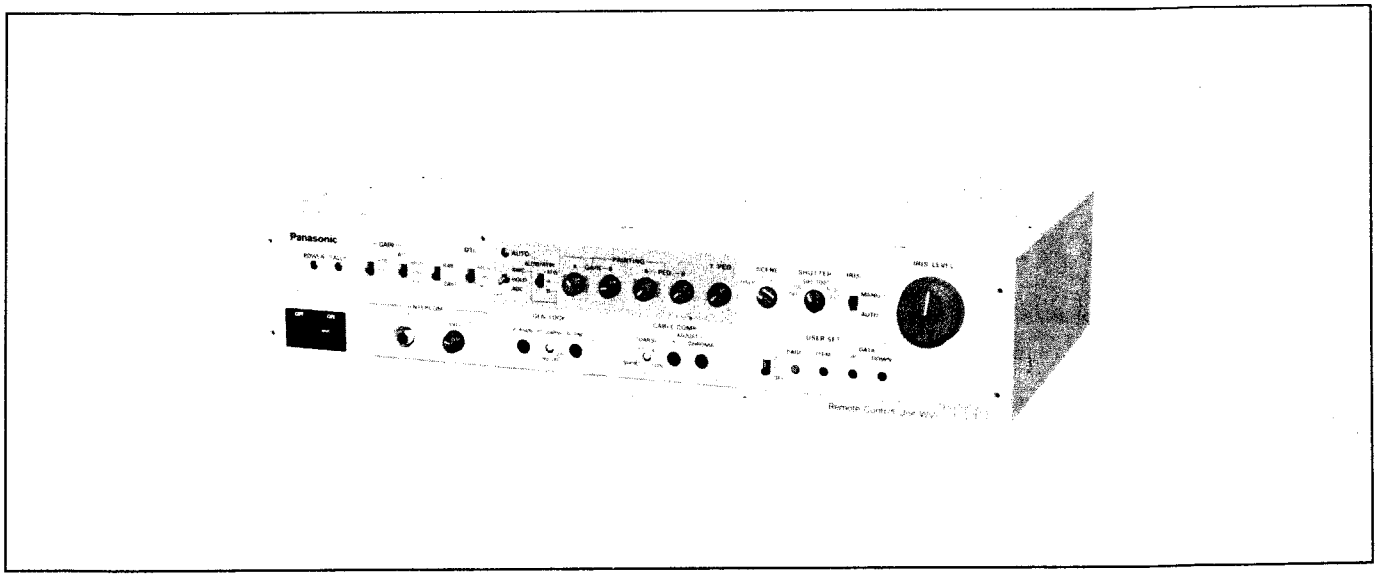
ORDER NO. AVS9405847C8

Service Manual

Remote Control Unit

WV-RC550



SPECIFICATIONS

Power Source :	WV-RC550A and WV-RC550B: 240VAC, 50Hz WV-RC550G: 230VAC, 50Hz
Video Output :	1.0Vp-p PAL Composite, 75 ohm x 2 (BNC Connector)
Y/C Output :	Y ; 1.0Vp-p Composite C ; 0.3 Vp-p Burst Level (4Pin S-Connector)
G/L Video Input :	1.0Vp-p PAL Composite or Black Burst Video 75 ohm x 2 Loop-through Auto Termination (BNC Connector)
AUX Input :	1.0Vp-p PAL Comosite, 75ohm x 2 Loop-through Auto Termination (BNC Connector)
Audio Output :	–20dB x 1 (RCA Pin Jack) (Camera Adapter Audio Level SW -20dB)
Intercom :	4pin Connector
Intercom Jack :	M-6
Pantilt Control :	15pin D-Sub Connector
Switches :	Power On/Off, Cable comp., Gain (AGC), CAM/BAR, DTL High/Low/OFF, AWC A/B/MAN (ATW), AWC/ABC ST-ART, Shutter speed (ELC, S/S), Scene, file, IRIS AUTO/MANU, Setup (Initial/User set), PAGE, ITEM, UP, DOWN, G/L SC coarse
Controls :	Y gain, Chroma gain, Incom level, R gain, B gain, R pedestal, B pedestal (Painting), Total pedestal, IRIS level, G/L H-phase, G/L 56 phase Fine
Maximum : Cable Length	26pin RCU Cable 300m (1000ft) MAX (WV-E550, WV-F500+WV-VF40/WV-VF42) 100m (330ft) MAX (WV-F500+WV-VF65) 230m (760ft) MAX (WV-F700A+WV-VF40/WV-VF42) 30m (100ft) MAX (WV-F700A+WV-VF65)
Power :	56W (WV-F500+WV-VF65, 100m 26pin RCU cable)
Ambient Operating Temperature :	–10°C - +45°C (14°F - 113°F)
Ambient Operating Humidity :	20% - 90%

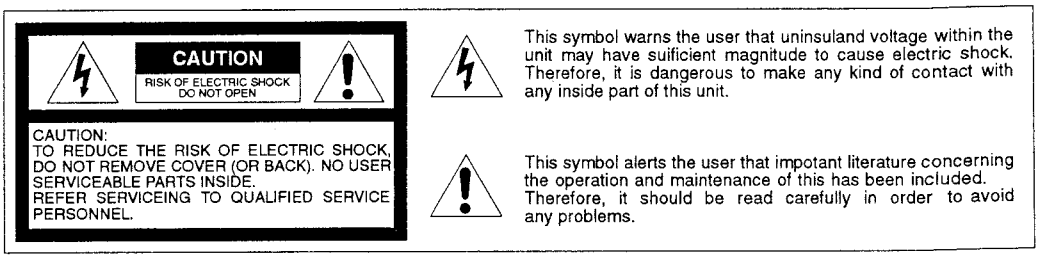
Panasonic

Dimensions :	420 (W) x 88 (H) x 250 (D) mm [16-1/2" (W) x 3-7/16" (H) x 9-13/16" (D)]
Weights :	6.7kg (14.7 lbs.)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

ACCESSORIES

4-Pin Connector (for Tally/Intercom)	x 1
Front Panel Overlay	x 1
Rack Mount Angle Fixing Screw	x 4
Rack Mount Angle	x 2
Rack Angle Handle	x 2
Rack Angle Handle Fixing Screw	x 4


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK). NO USER
SERVICEABLE PARTS INSIDE.
REFER SERVICEING TO QUALIFIED SERVICE
PERSONNEL.
This symbol warns the user that uninsuland voltage within the unit may have suificient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.
This symbol alerts the user that impotant literature concerning the operation and maintenance of this has been included. Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the ⚠ mark on the schematic diagram and the replacement parts list. It is essential that these critical parts should be repleced with manufacture's specilied parts to prevent shock, fire, or other hazards.
Do not modify the original design without permission of manufacture.

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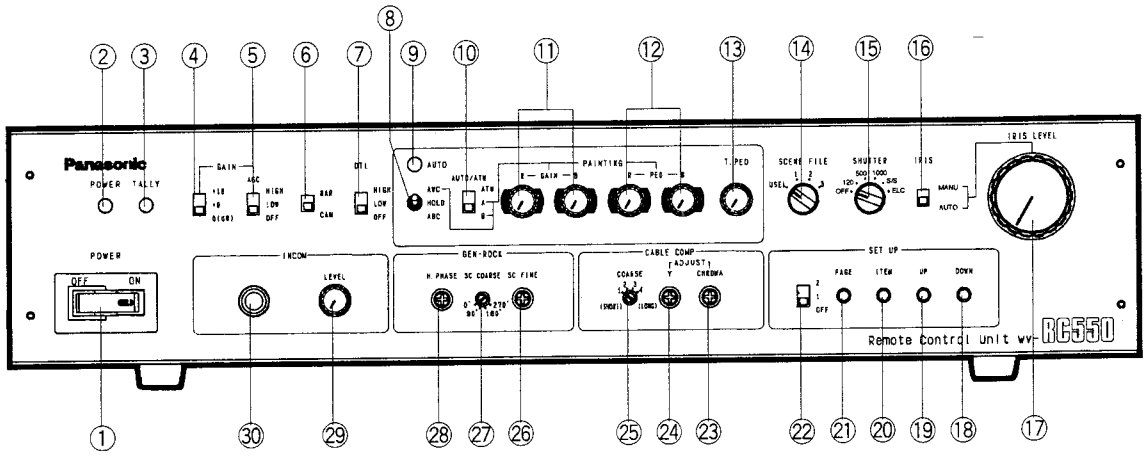
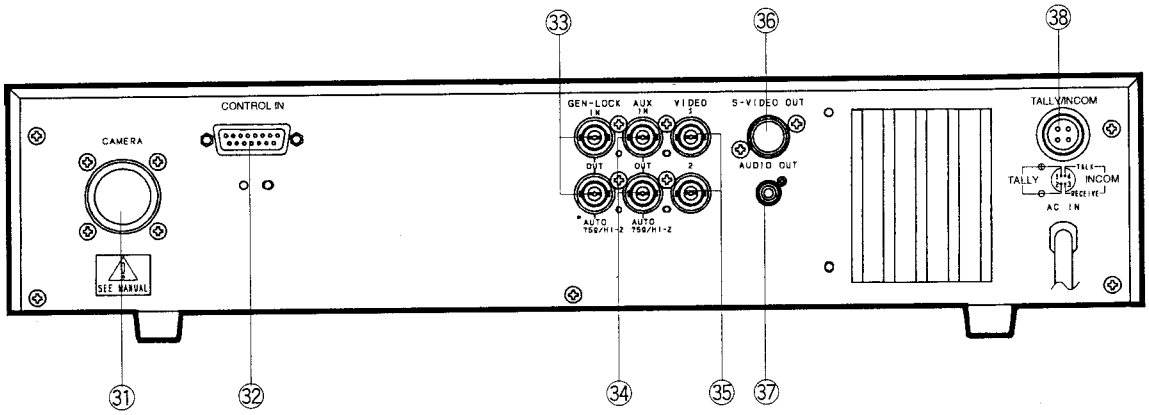
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS





1. Power Switch (POWER ON/OFF)
This switch turns on and off the power of the Remote Control Unit(RCU).

2. Power Indicator
This switch lights red whenever the unit is operating.

3. Tally Indicator (TALLY)
When this unit is used in conjunction with a Special Effects Generator, this indicator will light to indicate the selection of this unit from a Special Effects Generator.

4. High Gain Selection Switch (0dB/9dB/+18dB)
This switch can function only when the AGC Selection Switch (5) is set to OFF position.
Normally set the AGC Selection Switch of this unit to OFF position.
Positions +9dB and +18dB increase the video output amplitude for dark scenes and are equivalent to opening the lens iris 1.5 or 3F steps, respectively.

Note : When the AGC Selection Switch to the LOW or HIGH position, this switch does not work.

5. AGC Selection Switch (AGC HIGH/LOW/OFF)
When this unit is connected with WV-E550, the AGC MAX level can be selected.
Refer to the Operating Instructions of WV-E550 for details.

6. Colour Bar/Camera Selection Switch(BAR/CAM)
In a system configuration, this switch is used for signal selection between camera mode and colour bar mode.
BAR : A colour bar signal is provided from the Video Output Connector (35) of this unit.
CAM : The actual camera picture, as picked up through the lens, is displayed.

7. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

8. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows.

AWC : This position is used for setting the white balance when the White Balance Selection Switch (10) is set to the A or B position of the White Balance Selection Switch (10) White balance adjustment is required when the Auto Warning Indicator on this unit lights.

HOLD : In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC : This position is used for setting the black balance even if the White Balance Selection Switch (10) is set to any position. Black balance adjustment is required when the Auto Warning Indicator on this unit lights.

Notes :

1. While the black balance adjustment is being performed the picture will flash on the monitor screen. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.
2. If the Lens Iris Selection Switch is set to MAN position, Auto Black Balance may be not performed correctly.

9. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

10. White Balance Selection Switch (ATW/A/B)

This switch is used to select the auto white balance modes as follows.

ATW : The white balance is continuously adjusted automatically

A : The white balance can be set automatically by pressing the Auto White/Auto Black Set Switch(8).

B : Similar to A, but the setting is stored in memory B.

Note : Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

When this switch is set to A or B position, the white balance can be adjusted automatically by using the Auto White/Black Set Switch(8).

When PAINTING in Page No.1 of the Initial set menu is set to the ON position, fine adjustment of white balance and R/B pedestal level can be acheived by using the Red and Blue Gain Controls (11) or Red and Blue Pedestal Level Controls (12).

When this switch is set to the ATW position, white balance can be continuously adjusted automatically.

11. Red and Blue Gain Controls (R GAIN/B GAIN)

These controls are used to manually adjust the fine level of white balance.

These controls only work when the White Balance Selection Switch (10) is set to A/B position and PAINTING in Page No.1 of the Initial set menu is set to the ON mode.

Turn these controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels.

Note : As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps.

12. Red and Blue Pedestal Level Controls (PED, R/B)

The fine adjustment of black balance can be set manually by these controls.

These controls only work when the White Balance Selection Switch(10) is set to A/B position and PAINTING in Page No.1 of the Initial set menu is set to ON mode.

Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels.

Note : As this control employs Digital processing, these levels are changed in discrete steps.

13. Total Pedestal Level Control (TOTAL PEDESTAL)

This control can adjust the pedestal level of the video signal(luminance) for matching the black levels between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note : As this control employs Digital Processing, this level may be changed in the step.

14. Scene File Selection Switch (SCENE FILE)

This switch is used to select the most suitable camera preset conditions, depending on scene conditions, to obtain the best picture possible.

Refer to the Operating Instructions of the WV-E550 for details.

15. Electronic Shutter Selection Switch (OFF/120/500/1000/ S/S/ELC)

This switch is operative only when a camera featuring the electronic shutter function is connected with this unit.

OFF : Set this switch to this position when recording normally with standard shutter speeds.

120/500/1000 : Choose the suitable shutter speed from these when recording high speed action.

S/S : Shutter speed can be adjusted to the desired position using SYNCRO-SCAN in Page No.3 of the Initial set menu so that horizontal bar noise will be reduced when this switch is set to this position.

ELC : The ELC position makes the electric control for the luminance with the shutter.

Note : The smear may be appeared with the high light objects.

16. Lens Iris Selection Switch (IRIS, MANU/AUTO)

AUTO : The iris level of the lens is controlled automatically.

Note : Be sure to set the Iris Control Selection Switch on the zoom lens to AUTO position.

MANU : The iris level of the lens is controlled manually by turning the Iris Level Control.

17. Iris Level Control

This control is used to adjust the lens iris level. The iris level which had been automatically set, can be controlled fine using this control when the Lens Iris Selection Switch (16) is set to the AUTO position and AUTO IRIS in page No.2 of Initial set menu of the WV-E550 is set to the ADJ ON position.

18. Down Switch (DOWN)

This switch is used to decrease the set value of the item pointed out by the cursor in a menu.

19. Up Switch (UP)

This switch is used to increase the set value of the desired item pointed out by the cursor in a menu.

20. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus.

21. Page Switch (PAGE)

This switch is used to select the desired set-up menu from the available menus.

22. Setup Switch (OFF/1/2)

This switch selects Encorder output from the Video Output Connector and whether the User Set Function is available as follows.

OFF : Switch set to position #1 :
Encorder is output from the Video Output Connector on this unit and the Setup function is not available.

1/2 : Switch set to position #2 :
Encoder is output from the Video Output Connector on this unit and the Setup function is available.

23. Chroma Gain Fine Control (ADJUST CHROMA)

This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system.
Adjust this control only after having set the Cable Length Compensation Switch (25) and the Luminance Gain Fine Control (24) to the correct position.

24. Luminance Gain Fine Control (ADJUST Y)

This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch(25) to the correct position.

25. Cable Length Compensation Switch (COARSE, 1/2/3/4)

This switch is used to compensate for extensive cable length used with the 26-pin studio cable between this unit and the camera.

1. Use for cable length of less than 75m (225 ft)
2. Use for cable length of 75-150m (225-450 ft)
3. Use for cable length of 150-230m (450-690 ft)
4. Use for cable length of 230-300m (690-900 ft)

26. Subcarrier Phase Fine Control for Gen-lock (SC FINE)

This control allows for adjustment of the camera signal subcarrier phase from 0° to 360°, to match the phase with that of the burst signal at the Gen-lock Input Connector in a system configuration.

27. Subcarrier Phase Coarse Control for Gen-lock (SC COARSE)

The Coarse control adjusts the subcarrier phase from 0° to 360° in 90° steps, while Fine control allows for continuous fine adjustment over a range of 90°.

28. Horizontal Phase Control for Gen-lock(H PHASE)

The horizontal phase of the camera signal can be adjusted to much the horizontal phase of the signal at the Gen-lock Input Connector.

29. Intercom Level Control (INTERCOM, LEVEL)

Use this control to adjust the volume level in the headset connected to the Intercom Jack.

30. Intercom Jack (INTERCOM)

This jack is used for communications between the camera operator and the Remote Control Unit operator in a system configuration with a Special Effects Generator. (Only connection with WV-F500 or WV-F700 series)

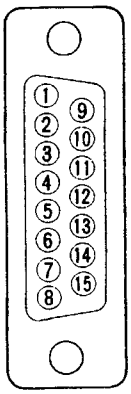
31. Camera Connector (CAMERA)

This connector is connected with the VTR/RCU Connector of camera by using the Conversion Cable (WV-CA26T20 with joint connector) and 26-pin studio cable.

32. Control Connector (CONTROL IN)

This connector is connected with the control connector of the pan/tilt unit or lens control by using the 15-pin multi cable.

1	LEFT
2	RIGHT
3	UP
4	DOWN
5	-
6	FOCUS
7	-
8	ZOOM
9	DEFROSTER
10	WIPER
11	-
12	+5V
13	+V (+7.5V)
14	-V (+2.5V)
15	GND



Caution:
Be sure to use the shield wire for this connection.

Pan/Tilt or Housing Control Voltage

	Operation	Stop
LEFT	2.5V	0
RIGHT	2.5V	0
UP	2.5V	0
DOWN	2.5V	0
DEFROSTER	2.5V	0
WIPER	2.5V	0

Lens Control Voltage

	Speed	
	Low	High
NEAR	4.0V	2.5V
FAR	6.0V	7.5V
WIDE	4.0V	2.5V
TELE	6.0V	7.5V

Note : The impedance for the control voltage circuit should be 2 kohms or less.

33. Gen-lock Connectors (GEN-LOCK IN/OUT/AUTO,75 /HI-Z)

These connectors receive the gen-lock signal(black burst or composite) from the Special Effects Generator for system reference.

When connecting two coaxial cables with BNC connectors to these connectors, the high impedance video loop is automatically selected. At all other times, these connectors are automatically terminated with 75 ohms.

Note : When not looping the gen-lock signal, be sure to connect the coaxial cable to the GEN-LOCK IN Connector. Otherwise, these connectors can not be automatically terminated.

34. Auxiliary Input Connectors (AUX IN-AUTO/75 Hi-Z OUT)

These connectors receive the lineview signal from a Special Effects Generator. Two connectors are provided for bridging or looping application.

When connecting a single coaxial cable with BNC connector to this connector, these connectors can not be automatically terminated with 75 ohms.

Note : When not looping Aux, signal, be sure to connect the coaxial cable to AUX IN Connector. Otherwise, these connectors are automatically terminated with 75 ohms.

35. Video Output Connectors (VIDEO 1, VIDEO 2)

These connectors supply a composite video signal to a Special Effects Generator, a Video Monitor or a VTR.

36. S-video Output Connector (S-VIDEO OUT)

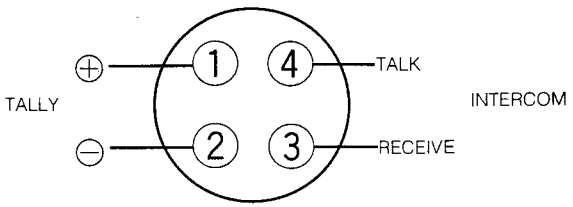
This connector outputs the Y/C signal when the Camera Output Signal Selector is set to Y/C position.

37. Audio Output Jack (AUDIO OUT)

For the WV-F500 or WV-F700 series Colour Camera operation.

38. Tally and Intercom Input Connector (TALLY & INTERCOM)

This connector is connected with the Tally/Incom connector of a Special Effects Generator.

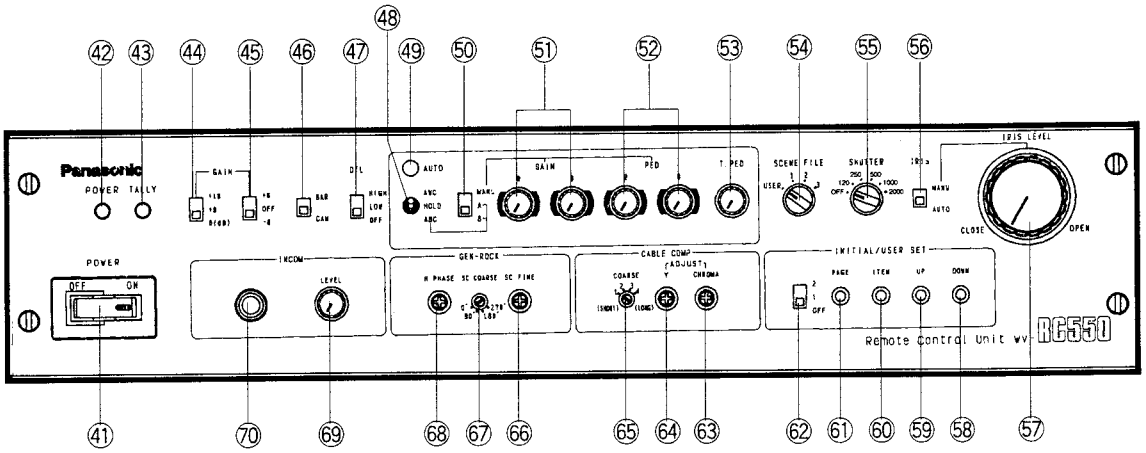


Caution:
Be sure to use the shield wire for this connection.

FOR WV-F500 and WV-F700 series Colour Camera Operation

Preparation: Stick the Front Panel Overlay (provided) onto the Front Panel of this unit and secure it with 4 screws (provided).

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



41. Power Switch (POWER, ON/OFF)
This switch turns on and off the power of the Remote Control Unit (RCU).

42. Power Indicator
This switch lights red whenever the unit is operating.

43. Tally Indicator (TALLY)
When this unit is used in conjunction with a Special Effects Generator, this indicator will light to indicate the selection of this unit from a Special Effects Generator.

44. High Gain Selection Switch (0 dB/+9 dB/+18 dB)
Normally set this switch to the 0 dB position. Positions +9 dB and + 18 dB increase the video output amplitude for dark scenes and are equivalent to opening the lens iris 1.5 or 3 F steps, respectively.

45. 6dB Gain Selection Switch (+6 dB/OFF/ -6 dB)
Normally set this switch to the OFF position. By the combination of this switch with the High Gain Selection Switch (44), fine adjustment of the gain level is available.

46. Colour Bar/Camera Selection Switch (BAR/CAM)
In a system configuration, this switch is used for signal selection between camera mode and colour bar mode.

BAR: A colour bar signal is provided from the Video Output Connector (35) of this unit.

CAM : The actual camera picture, as picked up through the lens, is displayed.

47. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)
The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

48. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)
This switch sets the white balance and black balance automatically as follows:

AWC: This position is used for setting the white balance when the White/Black Balance Selection Switch (50) is set to the A or B position. White balance adjustment is required when "AWC A NG" or "AWC B NG" is displayed in the viewfinder or when the Auto Warning Indicator (49) on lights.

HOLD : In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC: This position is used for setting the black balance when the White/Black Balance Selection Switch (50) is set to the A or B position. Black balance adjustment is required when "ABC NG" is displayed in the viewfinder or when the Auto Warning Indicator (49) on this unit lights.

Note: While the black balance adjustment is being automatically performed the picture will flash in the viewfinder and on the monitor screen. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

49. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance

50. White/Black Balance Selection Switch (MANU /A/B)

This switch is used to select the white balance and black balance modes as follows:

MANU: The white balance and black balance can be adjusted by using the Red and Blue Gain Controls (51) and the Red and Blue Pedestal Level Controls (52).

A: The White Balance can be set automatically by pressing the Auto White/Auto Black Set Switch itch (48) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B.

Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

51. Red and Blue Gain Controls (R GAIN/B GAIN)

These controls are used to manually adjust the white balance.

These controls only work when the White/Black Balance Selection Switch (50) is set to the MANU position.

Turn the controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels.

Note: As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps.

52. Red and Blue Pedestal Level Controls (PED, R/B)

The black balance can be set manually by these controls when the White/Black Balance Selection Switch (50) is set to the MANU position. Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels.

Note: As these controls employ the Digital Processing, these levels will be changed in discrete steps.

53. Total Pedestal Level Control (T.PED)

This control can adjust the pedestal level of the video signal (luminance) for matching the black level between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note: As this control employs the Digital Processing, this level rmay be changed in the step.

54. Scene Selection Switch (SCENE FILE)

This switch is used to select the most suitable camera conditions, depending on scene conditions, to obtain the best picture possible.

Refer to the Operating Instructions of WV-F700 or WV-F500 series for details.

55. Electronic Shutter Speed Selection Switch (OFF/120/250/500/1000/2000)

This switch is operative only when a camera featuring the electronic shutter function is connected with this unit.

When fast-moving objects are shot at the slow shutter speeds typically found in conventional cameras they will appear blurred. With the electronic shutter function, from which the following speeds can be selected: 1/120,1/250,1/500.1/1000 or 1/2000 of a second,. blur-free recording of high-speed action, such as car racing, golf swings, gymnastics, birds in flight is possible. The selection of shutter speed is made by pressing this switch.

OFF: Set this switch to this position when recording normally with standard shutter speeds.

1/120, 1/250, 1/500, 1/1000, 1/2000: Choose the suitable shutter speed from these.

56. Lens Iris Selection Switch (IRIS, MANU/AUTO)

This switch is used to set the lens iris of the auto iris servo control zoom lens as follows.

AUTO: The iris level of the lens is controlled automatically.

Note: Be sure to set the Iris Control Selection Switch on the zoom lens to the AUTO position.

MANU: The iris level of the lens is controlled to the desired level by using the Lens Iris Control (57)

57. Lens Iris Control (IRIS LEVEL, CLOSE/OPEN)

The iris level of the zoom lens can be manually controlled by turning this control when the Lens Iris Selection Switch (56) is set to the MAN position

58. Down Switch (DOWN)

This switch is used to decrease the set value of the item pointed out by the cursor.

59. Up Switch (UP)
This switch is used to increase the set value of the desired item pointed out by the cursor.

60. Item Switch (ITEM)
This switch is used to choose the item in the set up menu.

61. Page Switch(PAGE)
This switch is used to choose the desired set-up menu from the available menus.

62. Initial/User Set Switch (OFF/1/2)
This switch selects Encoder output or EVF (black and white) output from the Video Output Connector and whether the User Set Function is available as follows:
OFF: Encoder is output from the Video Output Connector (35) and the Initial/User Set function is available.
1: Encoder is output from the Video Output Connector (35) and the Initial/User Set function is available.
2: EVF (black and white) signal is output from the Video Output Connector (35) and the Initial/User Set function is available.

63. Chroma Gain Fine Control (CHROMA ADJUST)
This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (65) to the correct position.

64. Luminance Gain Fine Control (Y ADJUST)
This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (65) and the Luminance Gain Fine Control (24) to the correct position.

65. Cable Length Compensation Switch (COARSE, 1/2/3/4)
This switch is used to compensate for extensive cable lengths used with the 26-pin multi-cable between the camera and Remote Control Unit (RCU).
1. Use for cable length of less than 75m (225 ft)
2. Use for cable length of 75-150m (225-450 ft)
3. Use for cable length of 150 230m (450-690 ft)
4. Use for cable length of 230 300m (690-900 ft)

66. Subcarrier Phase Fine Control for Gen-lock (SC FINE)
This control allows for adjustment of the camera signal subcarrier phase from 0° to 360° to match the phase with that of the burst signal at the Gen-lock Input Connector in a system configuration.

67. Subcarrier Phase Coarse Control for Gen-lock (SC COARSE)
The coarse control adjusts the subcarrier phase from 0° to 360° in 90° steps, while the fine control allows for continuous fine adjustment over a range of 90°.

68. Horizontal Phase Control for Gen-lock (H PHASE)
The horizontal phase of the camera signal can be adjusted to much the horizontal phase of the signal at the Gen-lock Input connector.

69. Intercom Level Control (INTERCOM, LEVEL)
Use this control to adjust the volume level in the headset connected to the Intercom Jack (70).

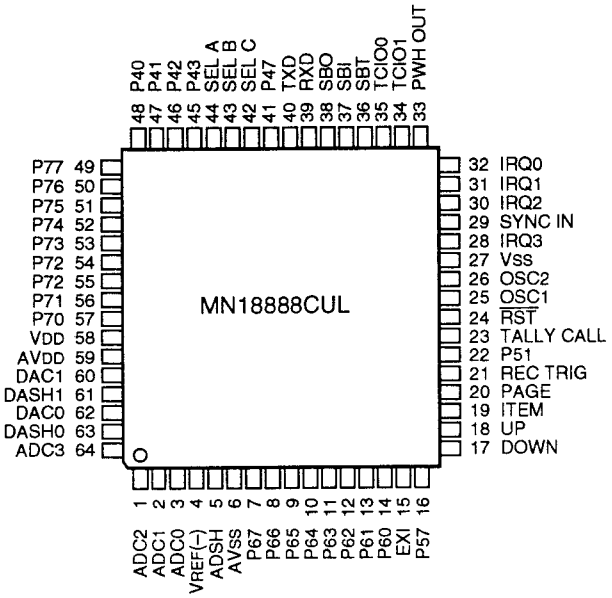
70. Intercom Jack (INTERCOM)
This jack is used for communications between the camera operator and Remote Control Unit (70) operator in a system configuration with a Special Effects Generator.

For the Rear Panel, Refer to Number 31 - 38 listed on page 5.

CIRCUIT DESCRIPTION

IC Description

1. IC5 on the Front Switch Board is using the Microprocessor IC MN18888CUL.
   Description of this IC is as follows:

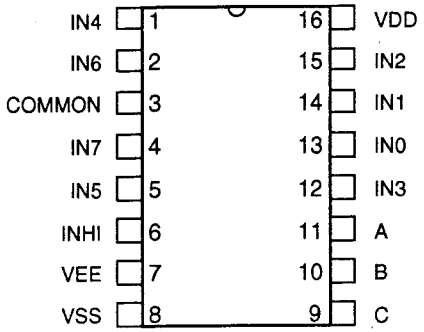


(TOP VIEW)

Pin	Name	I/O	Description
1	ADC2	I	AD Converter 2 input terminal.
2	ADC1	I	AD Converter 1 input terminal.
3	ADC0	I	AD Converter 0 input terminal.
4	VREF(-)	I	Reference voltage (–) input terminal.
5	ADSH	–	Capacitor connecting terminal for Sample and Hold of AD Converter.
6	AVSS	–	Ground terminal.
7	P67	–	Not used.
8	P66	–	Not used.
9	P65	–	Not used.
10	P64	–	Not used.
11	P63	–	Not used.
12	P62	–	Not used.
13	P61	–	Not used.
14	P60	–	Not used.
15	EXI	I	EXI signal input terminal.
16	P57	I	P57 signal input terminal.
17	DOWN	I	User Set Down signal input terminal.
18	UP	I	User Set Up signal input terminal.
19	ITEM	I	User Set Item signal input terminal.
20	PAGE	I	User Set Page signal input terminal.
21	REC TRIG	I	REC TRIG signal input terminal.

Pin	Name	I/O	Description
22	P51	I	P51 signal input terminal.
23	TALLY CALL	I	TALLY CALL signal input terminal.
24	$\overline{\text{RST}}$	I	Reset signal input terminal.
25	OSC1	I	8MHz System Clock Osc. input terminal.
26	OSC2	O	8MHz System Clock Osc. output terminal.
27	VSS	–	Ground terminal.
28	IRQ3	I	IRQ3 signal input terminal.
29	SYNC IN	I	SYNC IN signal input terminal.
30	IRQ2	I	IRQ2 signal input terminal.
31	IRQ1	I	IRQ1 signal input terminal.
32	IRQ0	I	IRQ0 signal input terminal.
33	PWH OUT	O	PWH OUT signal output terminal.
34	TCIO1	I	TCIO1 signal input terminal.
35	TCIO0	I	TCIO0 signal input terminal.
36	SBT	I	SBT signal input terminal.
37	SBI	I	SBI signal input terminal.
38	SBO	O	SBO signal output terminal.
39	RXD	I	RXD signal input terminal.
40	TXD	O	TXD signal output terminal.
41	P47	O	P47 signal output terminal.
42	SEL C	O	SEL C signal output terminal.
43	SEL B	O	SEL B signal output terminal.
44	SEL A	O	SEL A signal output terminal.
45	P43	O	P43 signal output terminal.
46	P42	O	P42 signal output terminal.
47	P41	O	Data output terminal (MSB).
48	P40	O	Data output terminal (9th.).
49	P77	O	Data output terminal (8th.).
50	P76	O	Data output terminal (7th.).
51	P75	O	Data output terminal (6th.).
52	P74	O	Data output terminal (5th.).
53	P73	O	Data output terminal (4th.).
54	P72	O	Data output terminal (3rd.).
55	P71	O	Data output terminal (2nd.).
56	P70	O	Data output terminal (LSB).
57	VDD	–	+5V supply terminal.
58	AVDD	–	+5V supply terminal.
59	VREF(+)	I	Reference voltage (+) input terminal.
60	DAC1	–	Not used.
61	DASH1	–	Capacitor connecting terminal for Sample and Hold of DA Converter 1.
62	DAC0	–	Not used.
63	DASH0	–	Capacitor connecting terminal for Sample and Hold of DA Converter 0.
64	ADC3	I	AD Converter 3 input terminal.

2. IC1, IC2, IC3 and IC9 on the Front Switch Board are using the Analog Multiplexer/Demultiplexer IC YWUPD4051BG.
Description of this IC is as follows:



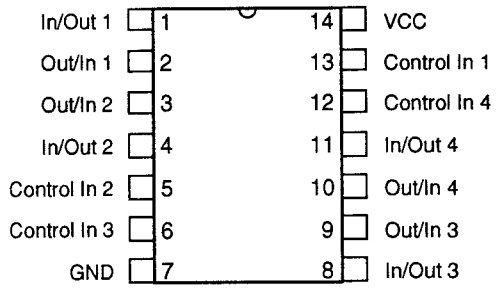
(TOP VIEW)

Truth Table

INHIBIT	C	B	A	COMMON
L	L	L	L	IN0
L	L	L	H	IN1
L	L	H	L	IN2
L	L	H	H	IN3
L	H	L	L	IN4
L	H	L	H	IN5
L	H	H	L	IN6
L	H	H	H	IN7
H	*	*	*	NONE

* : Don't care.

3. IC3 on the Rear Connector Board is using the Quad Analog Switches/Multiplexers IC YWμPD4066BG.
Description of this IC is as follows:

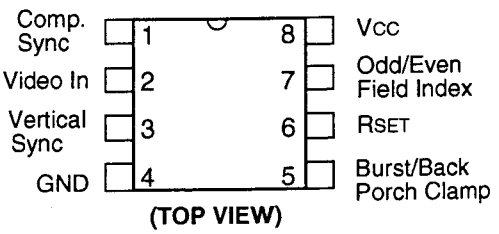


(TOP VIEW)

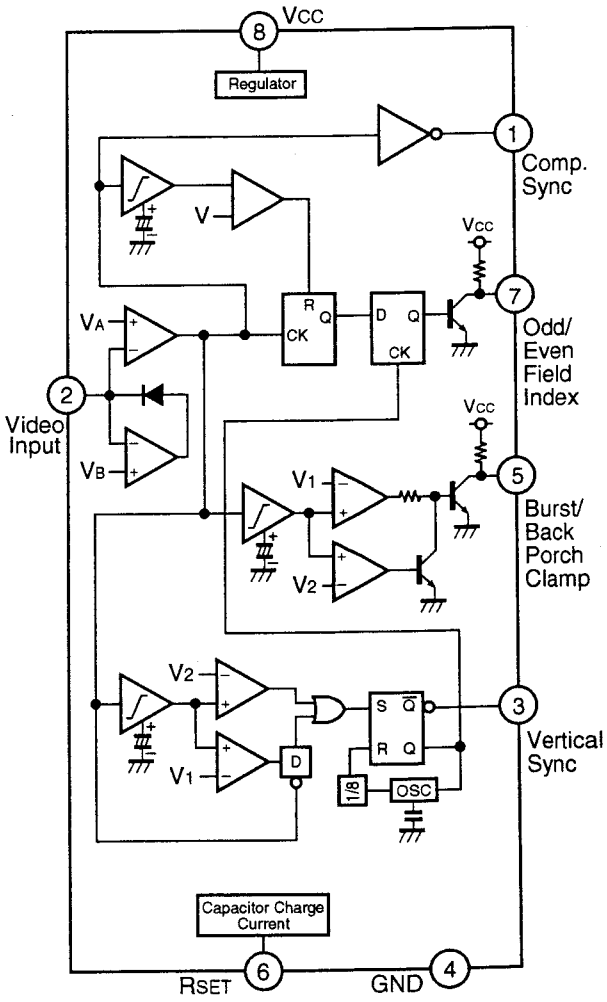
Truth Table

Input	Switch
Control	I/O – O/I
L	OFF
H	ON

4. IC6 and IC601 on the Video Board are using the Sync Separator IC YWLM1881M.
Description of this IC is as follows:

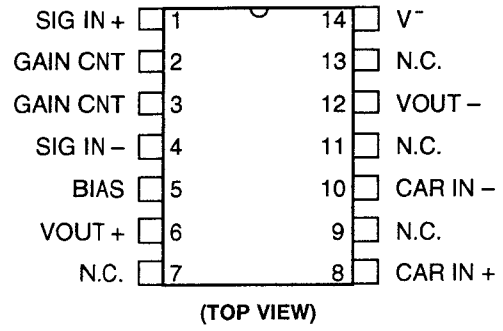


(TOP VIEW)

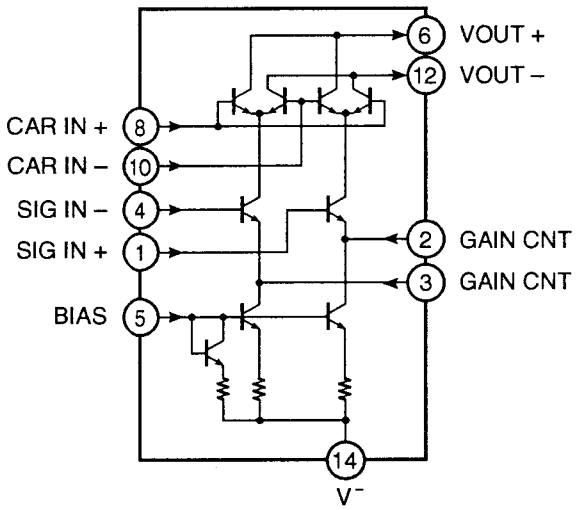


5. IC10, IC11, IC202, IC203, IC402 and IC403 on the Video Board are using the Modulator/Demodulator IC NJM1496M.

· Description of this IC is as follows:



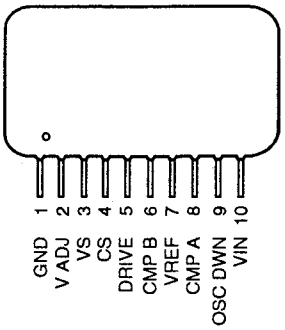
(TOP VIEW)

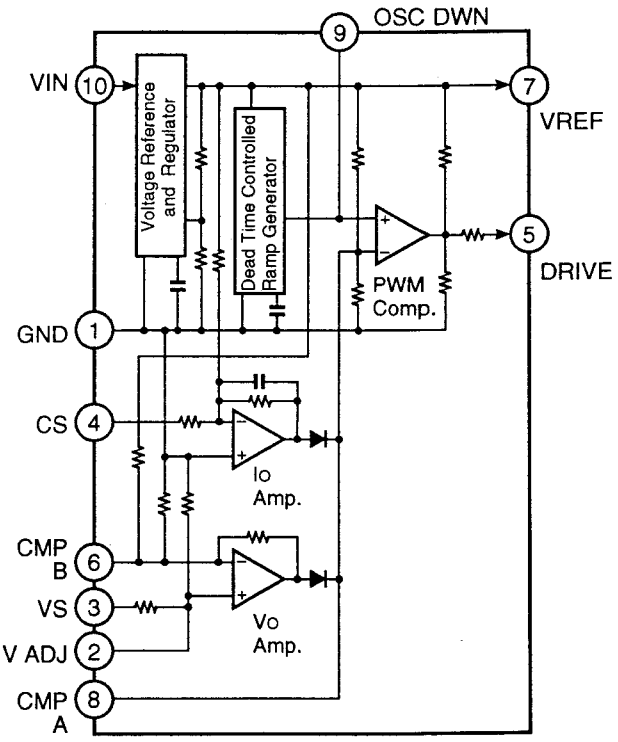


Pin	Name	I/O	Description
1	SIG IN +	I	Signal In (+) input terminal.
2	GAIN CNT	–	Gain Control terminal.
3	GAIN CNT	–	Gain Control terminal.
4	SIG IN –	I	Signal In (–) input terminal.
5	BIAS	I	Bias Input terminal.
6	VOUT +	O	Signal Out (+) output terminal.
7	N.C.	–	Non connection.
8	CAR IN +	I	Carrier In (+) input terminal.
9	N.C.	–	Non connection.
10	CAR IN –	I	Carrier In (–) input terminal.
11	N.C.	–	Non connection.
12	VOUT –	O	Signal Out (–) output terminal.
13	N.C.	–	Non connection.
14	V⁻	–	Negative Voltage supply terminal.

6. IC1 on the Video Board is using the Switching Regulator Controller IC YWSI8022.

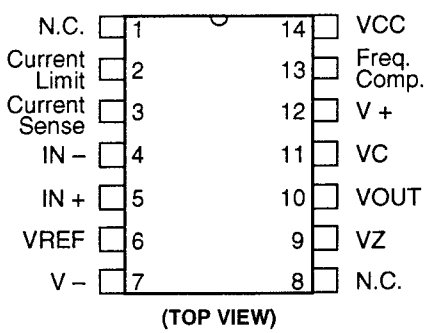
Description of this IC is as follows:

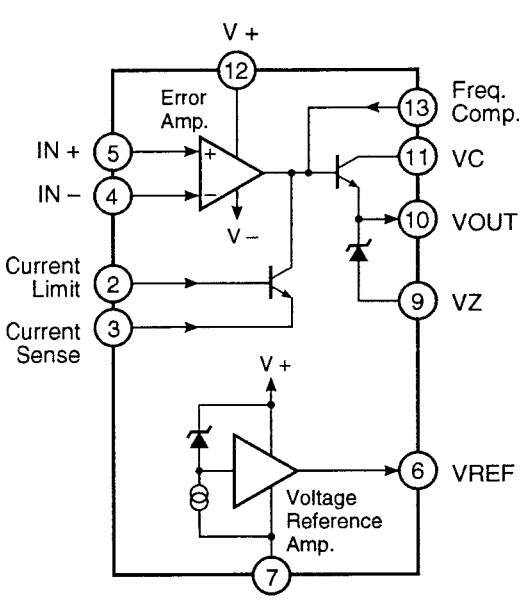




Pin	Name	I/O	Description
1	GND	–	Ground terminal.
2	V ADJ	I	Output voltage adjusting terminal.
3	VS	I	Voltage Sense terminal.
4	CS	I	Current Sense terminal.
5	DRIVE	O	Drive signal output terminal.
6	CMP A	–	Compensation A terminal.
7	VREF	O	Reference voltage output terminal.
8	CMP B	–	Compensation B terminal.
9	OSC DWN	O	Oscillation Out Shut Down signal output terminal.
10	VIN	I	Input voltage supply terminal.

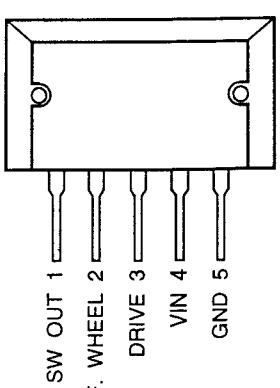
7. IC2 on the Video Board is using the Variable Output Regulator IC NJM723M.
Description of this IC is as follows:

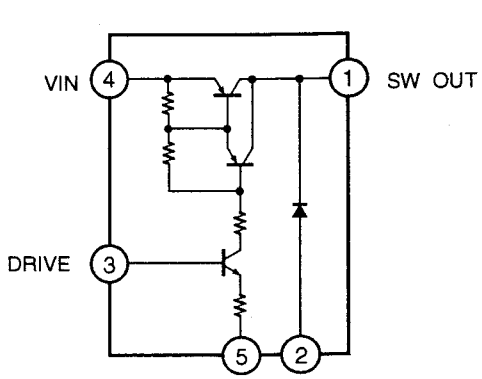




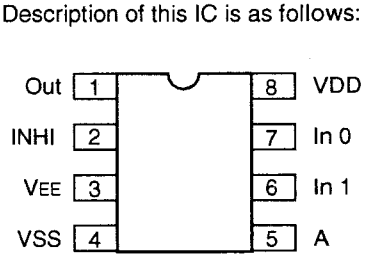
Pin	Name	I/O	Description
1	N.C.	–	Non connection.
2	Current Limit	I	Current Limit signal input terminal.
3	Current Sense	I	Current Sense signal input terminal.
4	IN –	I	Error Amp. Inverting Input terminal.
5	IN +	I	Error Amp. Non-inverting Input terminal.
6	VREF	O	Reference voltage output terminal.
7	V –	–	Negative voltage supply terminal.
8	N.C.	–	Non connection.
9	VZ	–	Anode terminal of Zener Diode.
10	VOUT	O	Regulated voltage output terminal.
11	VC	–	VC voltage supply terminal.
12	V +	–	Positive voltage supply terminal.
13	Freq. Comp.	I	Frequency compensation terminal.
14	N.C.	–	Non connection.

8. IC1 on the STR Board is using the Switching Regulator IC YWSTR7002.
Description of this IC is as follows:





9. IC603 on the Video Board is using the single 2-ch Multiplexer/Demultiplexer IC YWTC4W53FL.
Description of this IC is as follows:

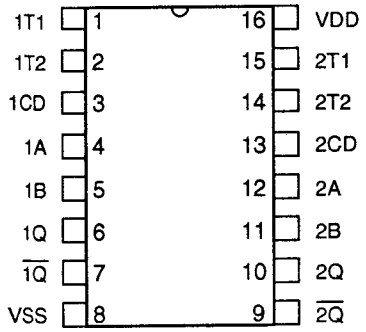


Truth Table

INPUTS		OUT
INHI	A	
L	L	IN 0
L	H	IN 1
H	*	None

*: Don't Care.

10. IC7 on the Video Board is using the Dual Monostable Multivibrators IC YWUPD4528BG.
Description of this IC is as follows:



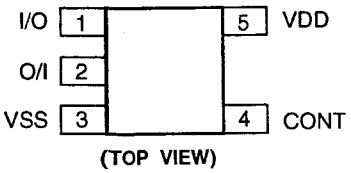
(TOP VIEW)

Truth Table

INPUTS			OUTPUTS		NOTE
A	B	RESET	Q	$\overline{Q}$	
↓	H	H	⊓	⊔	Output Pulse
↓	L	H	L	H	Inhibit
H	↑	H	L	H	Inhibit
L	↑	H	⊓	⊔	Output Pulse
*	*	L	L	H	Inhibit

* : Don't care.

11. IC6 and IC7 on the Rear Connector Board are using the single 2-ch Analog Switch/Multiplexer IC YWTC4S66FR.
Description of this IC is as follows:



(TOP VIEW)

Truth Table

Input	Switch
Control	I/O – O/I
L	OFF
H	ON

ADJUSTMENT PROCEDURE

1. Test Equipment Required

- The following Test Equipments are required for adjustment of the Remote Control Unit WV-RC550.
- Oscilloscope
- Waveform Monitor
- Vectorscope
- Underscanned Colour Video Monitor
- Digital Voltmeter
- Special Effects Generator WJ-4600 or WJ-5600
- Test Signal Generator (Black Burst Signal, Colour Bar Signal and Stair-step Signal)
- Colour Video Camera WV-F500, WV-F700AE or WV-E550E
- Camera Adaptor WV-AD500 or WV-AD700ASE
- 5" Viewfinder WV-VF65
- Studio Cable WV-CA26U30
- 20-Pin to 26-Pin Conversion Cable WV-CA26T20

2. Disassembling Procedure for Adjustment

- Referring to Fig. 2-1, remove five screws fixing the Upper Cover and remove the Upper Cover.

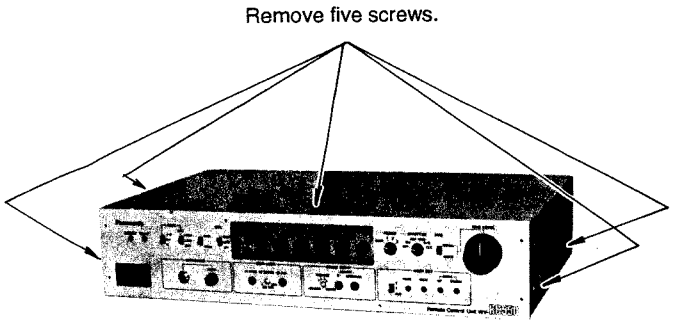
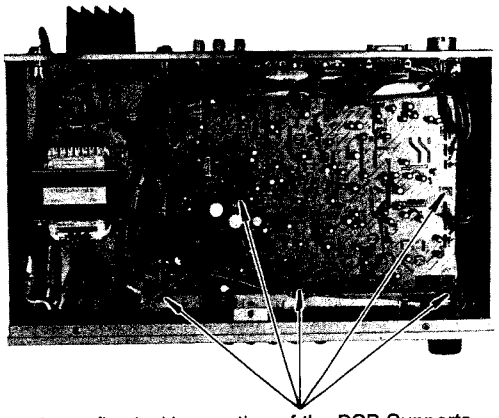


Fig. 2-1

- Referring to Fig. 2-2, release five locking section of the PCB Supports and turn the Video Board to the Rear Panel side.



Release five locking section of the PCB Supports.

Fig 2-2

3. Connection and Setting Up for Adjustment.

3.1. Connection

- The Fig. 3-1-1 shows the Connecting Diagram for the Adjustment of the WV-RC550 using the Colour Video Camera WV-E550E.

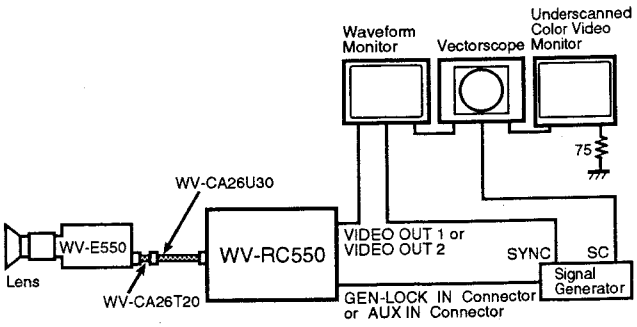


Fig 3-1-1

- The Fig. 3-1-2 shows the Connecting Diagram for the Adjustment of the WV-RC550 using the Colour Video Camera WV-F700AE with the Camera Adaptor WV-AD700ASE or WV-500 with WV-AD500.

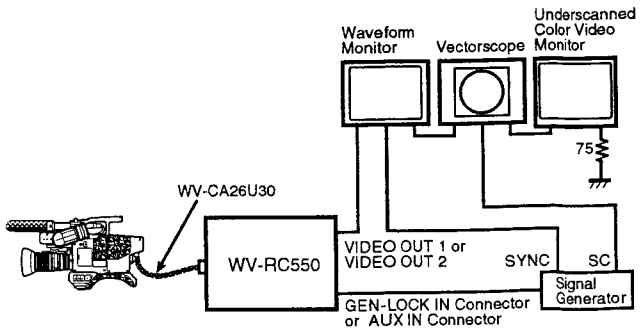


Fig 3-1-2

- Adapt the Camera Adaptor WV-AD700ASE to the Colour Video Camera WV-F700AE or Camera Adaptor WV-AD500 to the Colour Video Camera WV-F500.
- Adapt the Viewfinder WV-VF65 to the WV-F500.
- **For the WV-AD700ASE and WV-AD500**
  Connect the VTR/RCU Connector on the Camera Adaptor to the Camera Connector on the Rear Panel of the WV-RC550 using the Studio Cable WV-CA26U30.
  For the WV-E550E
  Connect the Remote Connector on the Rear Panel of the Color Video Camera to the Camera Connector on the Rear Panel of the WV-RC550 using the 20-Pin to 26-Pin Conversion Cable WV-CA26T20 and the Studio Cable WV-CA26U30.
- Connect the Underscanned Colour Video Monitor through the Waveform monitor and Vectorscope to the Video Output Connector (VIDEO1) on the Rear Panel of the WV-RC550 using the Coaxial Cable.
- Terminate the Input Terminal of the Underscanned Colour Video Monitor with 75Ω.
- Connect the Test Signal Generator or Special Effects Generator to the GEN-LOCK IN Connector on the Rear Panel of the WV-RC550.
- Connect the Video Output Connector of the Test Signal Generator to the AUX IN Connector on the Rear Panel of the WV-RC550 using the Coaxial Cable.
- Connect the SC Output Connector of the Test Signal Generator to the SC Input Connector of the Vectorscope using the Coaxial Cable.
- Connect the probe of the Digital Voltmeter or Oscilloscope to the desired test point in each adjustment step.

3.2. Setting Up

- This adjustment should be made after 30 minutes warm up of the Remote Control Unit WV-RC550.
- The initial position of the Switches are as follows:

Camera Adaptor

RCU/VTR Signal Selection Switch :	Y/C/B
Cable Selection Switch :	VTR/MULTI

Remote Control Unit WV-RC550

Cable Length Compensation Switch :	1
Color Bar/Camera Selection Switch :	BAR

- All adjustment steps should be done with this standard setting, unless otherwise specified.

4. Adjustment

- Refer to the Location of the Test Points and the Adjusting Controls on Page 17.

(1) + 15V Confirmation

Test Point: TP1 (+ 15V) **Video Board**

- Connect the Digital Voltmeter to TP1.
- Confirm that the voltage at TP1 should be within + 15.2 ± 0.1V DC.

(2) + 12V Adjustment

Test Point: TP2 (+ 12V) **Video Board**
Adjust: VR2 (+ 12V) **Video Board**

- Connect the Digital Voltmeter to TP2.
- Adjust VR2 to obtain + 12.0 ± 0.1V DC.

(3) + 8.8V Confirmation

Test Point: TP3 (+ 8.8V) **Video Board**

- Connect the Digital Voltmeter to TP3.
- Confirm that the voltage at TP3 should be within + 8.8 ± 0.1V DC.

(4) + 5.2V Confirmation

Test Point: TP4 (+ 5.2V) **Video Board**

- Connect the Digital Voltmeter to TP4.
- Confirm that the voltage at TP4 should be within + 5.2 ± 0.1V DC.

(5) – 5V Confirmation

Test Point: TP5 (– 5V) **Video Board**

- Connect the Digital Voltmeter to TP5.
- Confirm that the voltage at TP5 should be within – 5.0 ± 0.1V DC.

(6) Y Adjust and C Adjust Setting

Test Point:	**Pin 6 of CN5 (Y ADJUST)**	**Video Board**
	Pin 7 of CN5 (C ADJUST)	**Video Board**
Adjust:	**Y ADJUST**	**Front Panel**
	CHROMA ADJUST	**Front Panel**

- Connect the Digital Voltmeter to the pin 6 of CN5.
- Adjust Luminance Gain Fine Control (Y ADJUST) Volume to obtain + 5.0 ± 0.05V DC.
- Change the connection of the Digital Voltmeter to the pin 7 of CN5.
- Adjust Chroma Gain Fine Control (CHROMA ADJUST) Volume to obtain + 6.0 ± 0.3V DC.

(7) Reference Voltage Adjustment

Test Point:	**TP8 (REF)**	**Video Board**
	TP202 (R REF)	**Video Board**
	TP402 (G REF)	**Video Board**
Adjust:	**VR3 (REF)**	**Video Board**
	VR201 (R REF)	**Video Board**
	VR401 (G REF)	**Video Board**

- Connect the Digital Voltmeter to TP8.
- Adjust VR3 to obtain + 6.5 ± 0.05V DC.
- Change the connection of the Digital Voltmeter to TP202.
- Adjust VR201 to obtain + 6.5 ± 0.05V DC.
- Change the connection of the Digital Voltmeter to TP402.
- Adjust VR401 to obtain + 6.5 ± 0.05V DC.

(8) Video and Y/C Gain Adjustment

Test Point:	**TP9 (VIDEO OUT-1)**	**Video Board**
	TP10 (VIDEO OUT-2)	**Video Board**
	TP203 (R/PR/C OUT)	**Video Board**
	TP403 (G/MIIY/Y OUT)	**Video Board**
Adjust:	**VR4 (VIDEO GAIN)**	**Video Board**
	VR202 (R GAIN)	**Video Board**
	VR402 (G GAIN)	**Video Board**

- Connect the terminated Oscilloscope with 75Ω to TP9.
- Adjust VR4 so that the the Y signal level becomes 700 ± 7 mV as shown in Fig. 4-1.

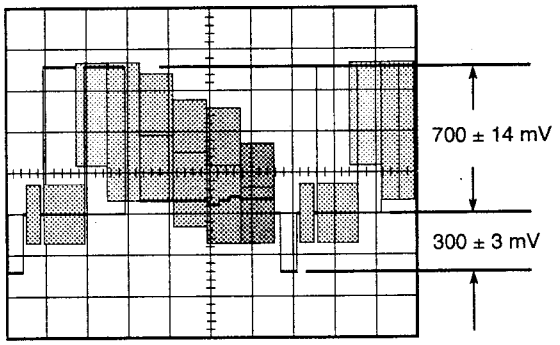


Fig. 4-1

- Change the connection of terminated Oscilloscope with 75Ω to TP10, then confirm that the Y signal level becomes 700 ± 7 mV as shown in Fig. 4-1.
- Change the terminated Oscilloscope with 75Ω to TP203.
- Adjust VR202 so that the Chroma signal level becomes 700 ± 7 mV as shown in Fig. 4-2.

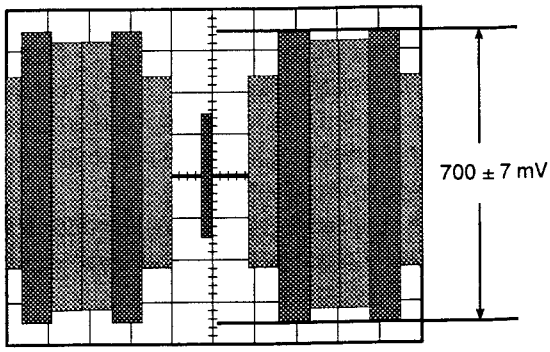


Fig. 4-2

- Change the terminated Oscilloscope with 75Ω to TP403.
- Adjust VR402 so that the Burst signal level becomes 300 ± 3 mV as shown in Fig. 4-3.

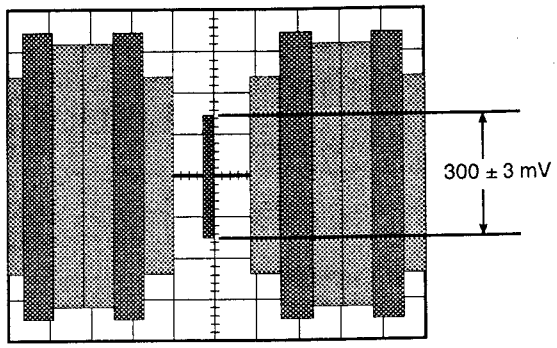


Fig. 4-3

Note: Do not turn the Cable Length Compensation Switch and Y ADJUST Volume on the Front Panel of the WV-RC550 in this adjustment step.

(9) C Adjust Voltage Confirmation

Test Point: Video Output Connector (VIDEO1)

		Rear Panel
	Pin 7 of CN5 (C ADJ)	**Video Board**
Adjust:	**CHROMA ADJUST**	**Front Panel**

- Observing the Vectorscope, adjust the Y ADJUST Volume so that the R Vector becomes center of the R Chroma position of the Vectorscope as shown in Fig. 4-4.

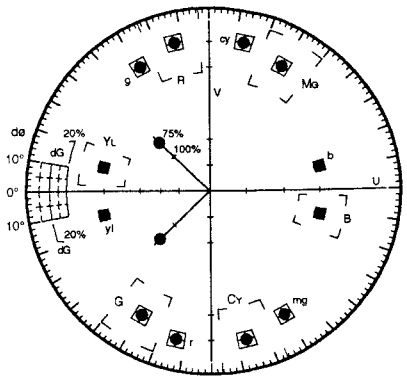


Fig. 4-4

- Connect the Digital Voltmeter to the pin 7 of CN5.
- Confirm that the voltage at the pin 7 of CN5 should be within + 6.0 ± 1.5V DC.

(10) G/L Sync Level Adjustment

Test Point: TP601 (G/L OUT) **Video Board**
Adjust: VR602 (G/L SYNC) **Video Board**

- Supply the Black Burst signal (Sync and Burst levels should be 300 mV) to the GEN-LOCK IN Connector on the Rear Panel of the WV-RC550.
- Connect the terminated Oscilloscope with 75Ω to TP601.
- Adjust VR602 so that the Sync signal level becomes 500 ± 50 mV as shown in Fig. 4-5.

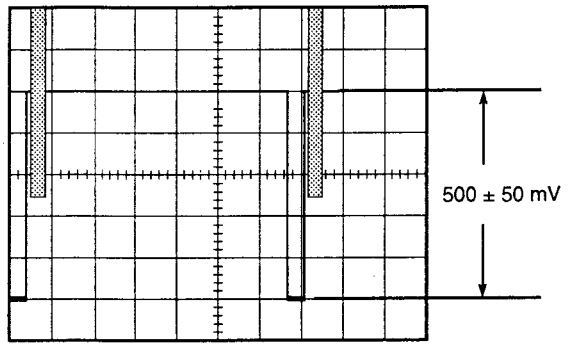


Fig. 4-5

(11) G/L Burst Level Adjustment

Test Point: TP601 (G/L OUT) **Video Board**
Adjust: VR601 (G/L BURST) **Video Board**

- Supply the Black Burst signal (Sync and Burst levels should be 300 mV) to the GEN-LOCK IN Connector on the Rear Panel of the WV-RC550.
- Connect the terminated Oscilloscope with 75Ω to TP601.
- Adjust VR601 so that the Sync signal level becomes 500 ± 50 mV as shown in Fig. 4-6.

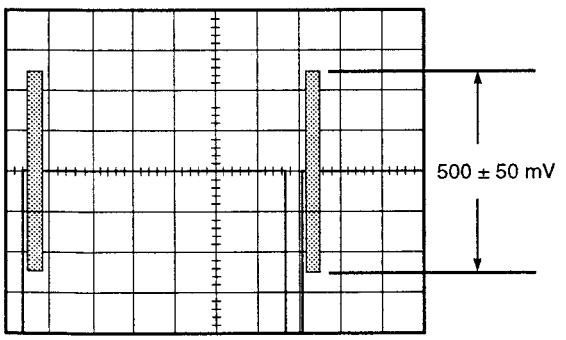


Fig. 4-6

(12) AUX Level Adjustment

Test Point: TP502 (AUX OUT) **Video Board**
Adjust: VR501 (AUX) **Video Board**

- Supply the Stair-step signal (1.0 Vp-p, APL = 50%) as shown in Fig. 4-7 to the AUX IN Connector on the Rear Panel of the WV-RC550.

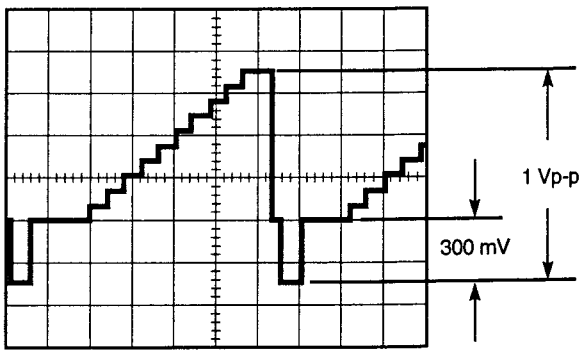


Fig. 4-7

- Connect the terminated Oscilloscope with 75Ω to TP502.
- Adjust VR501 so that the Sync signal level becomes 350 ± 10 mV as shown in Fig. 4-8.

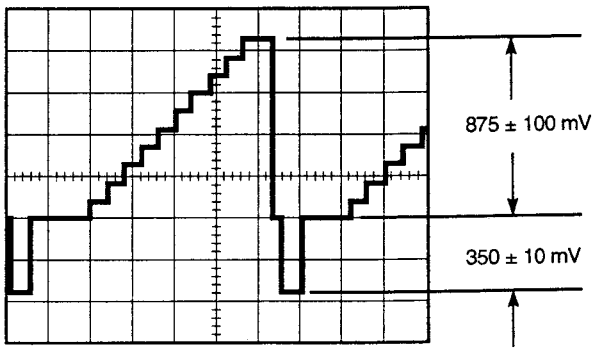


Fig. 4-8

- Confirm that the Y signal level becomes 875 ± 100 mV as shown in Fig. 4-8.

(13) Video Out 2 Level Confirmation

Test Point: VIDEO OUTPUT Connector (VIDEO1) **Rear Panel**
VIDEO OUTPUT Connector (VIDEO2) **Rear Panel**

- Connect the terminated Oscilloscope with 75Ω to the Video Output Connector (VIDEO1), then measure the signal level at the Video Output Connector (VIDEO1).
- Change the connection of terminated Oscilloscope with 75Ω to the Video Output Connector (VIDEO2), then confirm that the signal level difference between the Video Output Connector and the Video Output Connector (VIDEO2) should be within ± 35 mV.

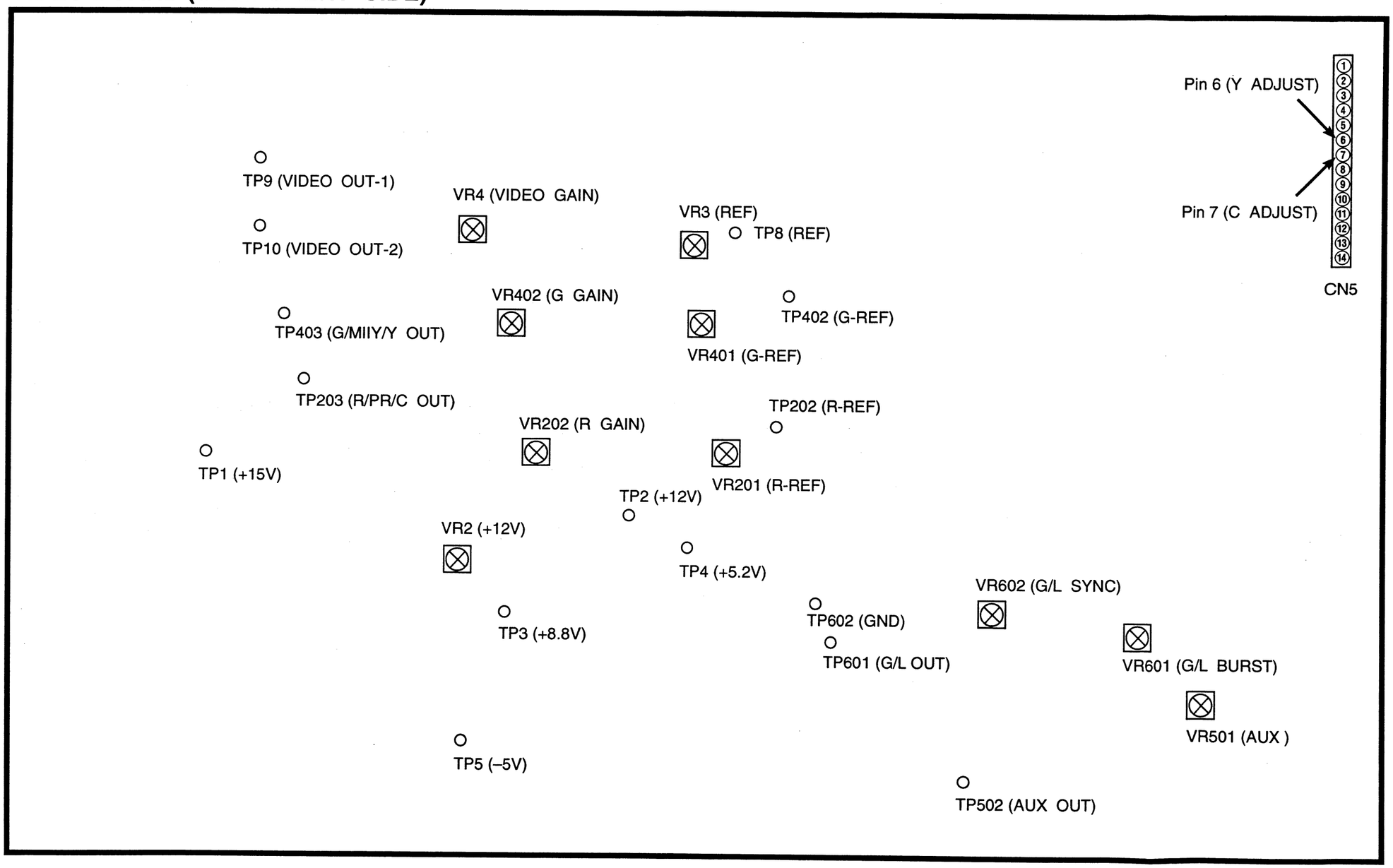
(14) S-Video Out Level Confirmation

Test Point: TP403 (G/MIIY/Y OUT) **Video Board**
TP203 (R/PR/C OUT) **Video Board**

- Connect the terminated Oscilloscope with 75Ω to TP403.
- Confirm that the Y signal level becomes 700 ± 70 mV.
- Change the connection of terminated Oscilloscope with 75Ω to TP203.
- Confirm that the Burst signal level becomes 300 ± 30 mV.

LOCATION OF TEST POINTS AND ADJUSTING CONTROLS

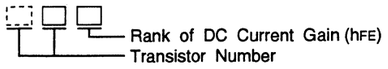
VIDEO BOARD (COMPONENT SIDE)



CHIP COMPONENTS

1. Chip Transistor

The transistor number is indicated on the top surface of the chip transistor using two alphabet letters or one numerical number and two alphabet letters.



Transistor Number

(Chip Transistor)

Letter	Transistor No.	Letter	Transistor No.
A	2SB709	X	2SD602A
B	2SB709A	Y	2SD601
C	2SB710	Z	2SD601A
D	2SB710A	1A	2SB799
E	2SA1022	1B	2SB814
F	2SA1034	1C	2SB902
H	2SA1035	1F	2SK321
I	2SB792	1K	2SK316
K	2SC2778	1L	2SK247
P	2SD814	1M	2SJ84
Q	2SD813	1N	2SK199
R	2SC2480	1O	2SK198
S	2SC2405	1T	2SC3077
T	2SC2406	1X	2SC2845
U	2SC2404	1Z	2SD1030
V	2SC2295	2B	2SK374
W	2SD602	2C	2SK116
BQ	2SB766A	UMT	2SC4081

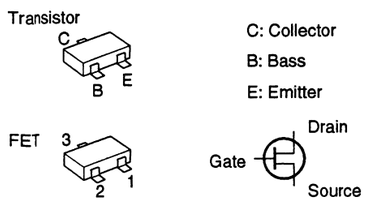
(Small Chip Transistor) (Pair Transistor)

Letter	Transistor No.
A	2SB1218
B	2SB1218A
D	2SB1219A
U	2SC3931
W	2SD1820
X	2SD1820A
Y	2SD1819
E3	2SA1226
OS	2SB1219
UC	2SA1532
YU	2SC3938

Letter	Transistor No.	Letter	Transistor No.
5R	XN1501	5H	XP4501
7S	XN1601	5C	XP4601
5H	XN4501	5H	XP4501
5C	XN4601	5L	XP5501
5L	XN5501	4N	XP5601
4N	XN5601	7S	XP6501
5N	XN6501	7W	XP6435
7W	XN6435	7F	XP6534
7F	XN6534	X1	UMX1
5R	XP1501	Z1	UMZ1
7S	XP1601		

Example: WQ ⟶ 2SD602-Q
YQ ⟶ 2SD601-Q
1BS ⟶ 2SB814-S

Appearance and Symbols



	1	2	3
Eacept 2SK199	Drain	Source	Gate
2SK199	Gate	Drain	Source

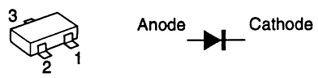
2. Chip Diode

The diode number is indicated on the top surface of the chip diode using two alphabet letters.

Diode Number

	1	2	3
MA28/MA28W/MA28T	–	Anode	Cathode
MA151K/MA152K	–	Anode	Cathode
MA151A/MA152A	–	Cathode	Anode
MA151WK/MA152WK	Anode	Anode	Cathode
MA151WA/MA152WA	Cathode	Cathode	Anode
MA153	Cathode	Anode	Common
MA141K	–	Anode	Cathode
MA143	Anode	Cathode	Common
MA3062	Anode	–	Cathode
RD421D	Anode	–	Cathode

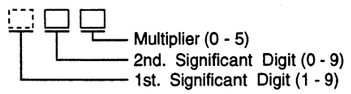
Appearance and Symbol



	1	2	3
MA28/MA28W/MA28T	–	Anode	Cathode
MA151K/MA152K	–	Anode	Cathode
MA151A/MA152A	–	Cathode	Anode
MA151WK/MA152WK	Anode	Anode	Cathode
MA151WA/MA152WA	Cathode	Cathode	Anode
MA153	Cathode	Anode	Common
MA141K	–	Anode	Cathode
MA143	Anode	Cathode	Common
MA3062	Anode	–	Cathode
RD421D	Anode	–	Cathode

3. Chip Resistor

The resistor value is indicated on the bottom surface of the chip resistor using three digit numbers.



Example:

330 ⟶ 33×10^0 = 33 Ω
561 ⟶ 56×10^1 = 560 Ω
123 ⟶ 12×10^3 = 12 kΩ

Note: Zero ohm resistor (jumper chip) is colored red or green.

4. Chip Capacitor

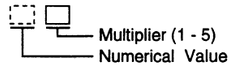
The capacitive value of replacement chip capacitors is indicated on the bottom surface. original parts do not have value indication.

If the capacitive value is less than 100 pF, the value will be indicated by one or two digit number expressing the capacity directly in pF.

Example:

0.5 ⟶ 0.5 pF 2.5 ⟶ 2.5 pF
.75 ⟶ 0.75 pF 33 ⟶ 33 pF
1 ⟶ 1 pF 82 ⟶ 82 pF

If the capacitive value is 100 pF or greater, the value will be indicated by an alpha-numeric code. The letter precedes the number and expresses a numerical value to be multiplied by the number which follows.



Numerical Value

Letter	Value	Letter	Value
A	10	N	33
B	11	P	36
C	12	Q	39
D	13	R	43
E	15	S	47
F	16	T	51
G	18	U	56
H	20	V	62
J	22	W	68
K	24	X	75
L	27	Y	82
M	30	Z	91

* Letters I and O are not used.

Example: A1 ⟶ 10×10^1 = 100 pF
N2 ⟶ 33×10^2 = 3300 pF
S3 ⟶ 47×10^3 = 47000 pF

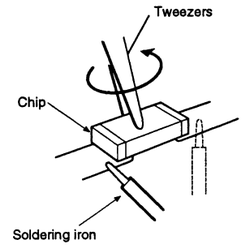
5. Precautions in replacing the chip component

1. Make sure that the unit is turned OFF when replacing the chip.
2. Use tweezers to prevent any damage to the chip surface.
3. Do not re-use the chips after removal.
4. Do not rub the electrode of chips.
5. Do not subject the chips to excessive stress.
6. It is recommended that a pencil-type soldering iron to be used.
7. The solder whose diameter is less than 0.5 mm is recommended.
8. Do not heat the chip beyond 3 second.
9. Maintain temperature control under 260°C (500°F) when soldering.

5-1 Removal (Transistor, Diode, Resistor and Capacitor)

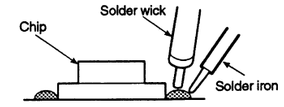
1. Add the solder to both ends of the chip (three leads for chip transistor).
2. While attaching the sokdering iron to both ends of the chip (three leads for chip transistor) as shown below, remove the chip by turning with tweezers.

Note: Be careful not to damage other chips.

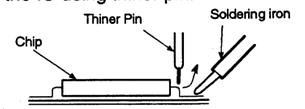


5-2 Removal (IC)

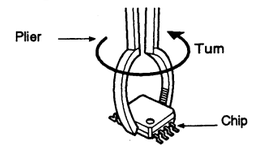
1. Add the solder wick and soldering iron to each lead of the IC and remove solder.



2. Add the soldering iron to each lead of the IC and left each lead of the IC using thiner pin.

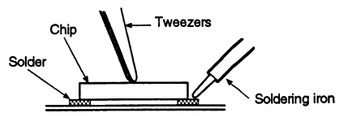


3. Remove IC turning it with plier.

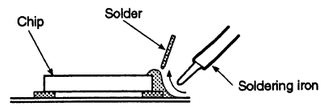


5-3 Mounting

1. Place the solder thinly on the chip mounting foil.
2. Solder the chip temporarily while holding the chip with the tweezers.

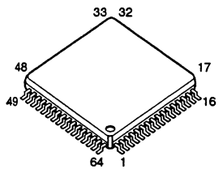


3. Solder both ends of chip (three leads for chip transistor).

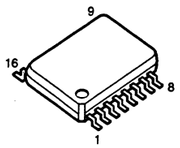


APPEARANCE OF IC, TRANSISTOR AND DIODE

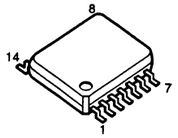
MN18888CUL



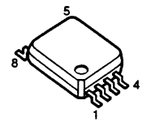
YWUPD4050BG
YWUPD4051BG
YWUPD4528BG



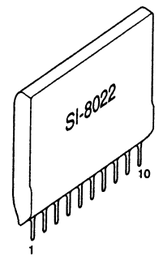
NJM723M NJM1496M
NJM2901M YWUPC4064G2
YWUPD4001BG YWUPD4066BG
YWUPD74HC14G



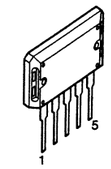
YWLM1881M NJM386M
NJM2902M NJM2903M
NJM2904M NJM4556MB
YWTC4W53FL YWUPC4062G2



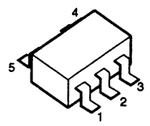
YWSI8022



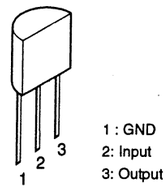
YWSTR7002



YWTC4S66FR

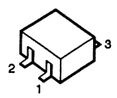


NJM79L05A

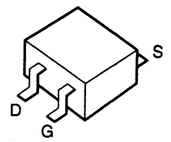


1 : GND
2: Input
3: Output

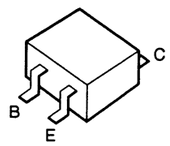
MN13821M



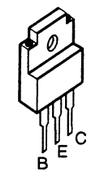
2SK198



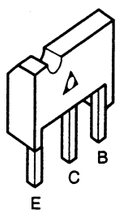
2SB709-QRS 2SB710-QRS
2SC2404-CD 2SC2405
2SD601-RS 2SD602-QRS



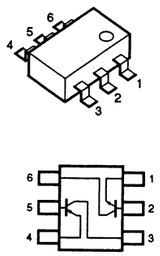
2SB946P



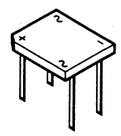
2SB793A
2SD973A



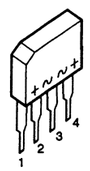
XN4601



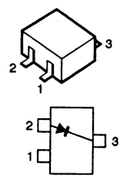
S15VB20



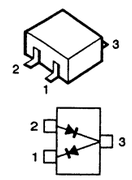
S1VB20



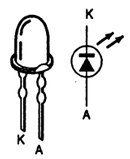
MA151K



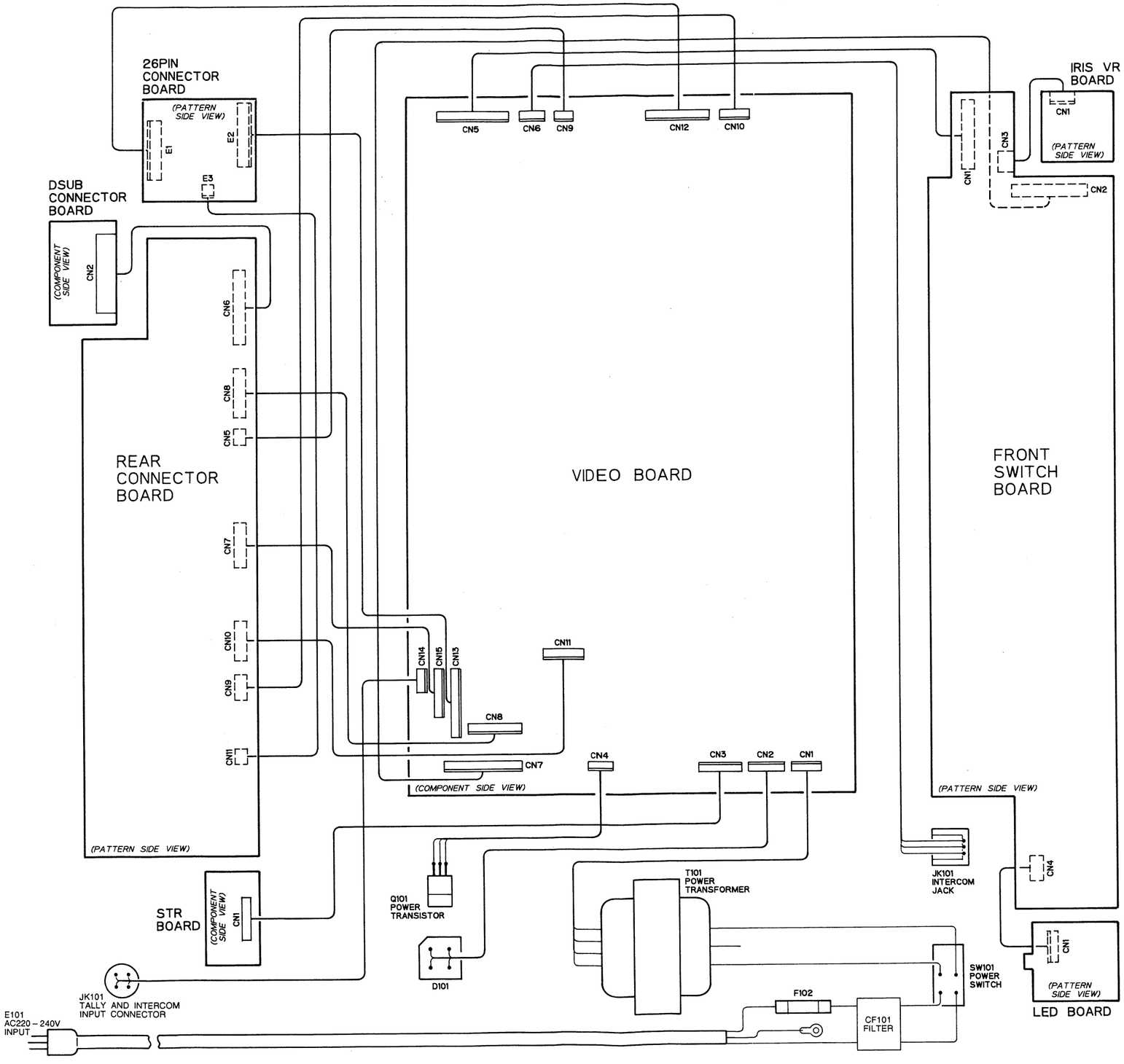
MA153



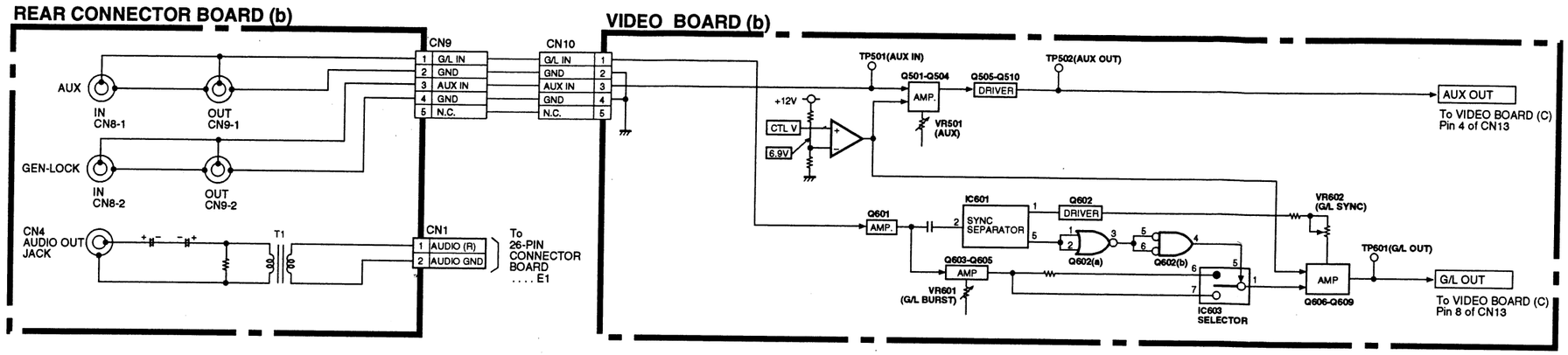
LN21RPJHL
LN31GPHL

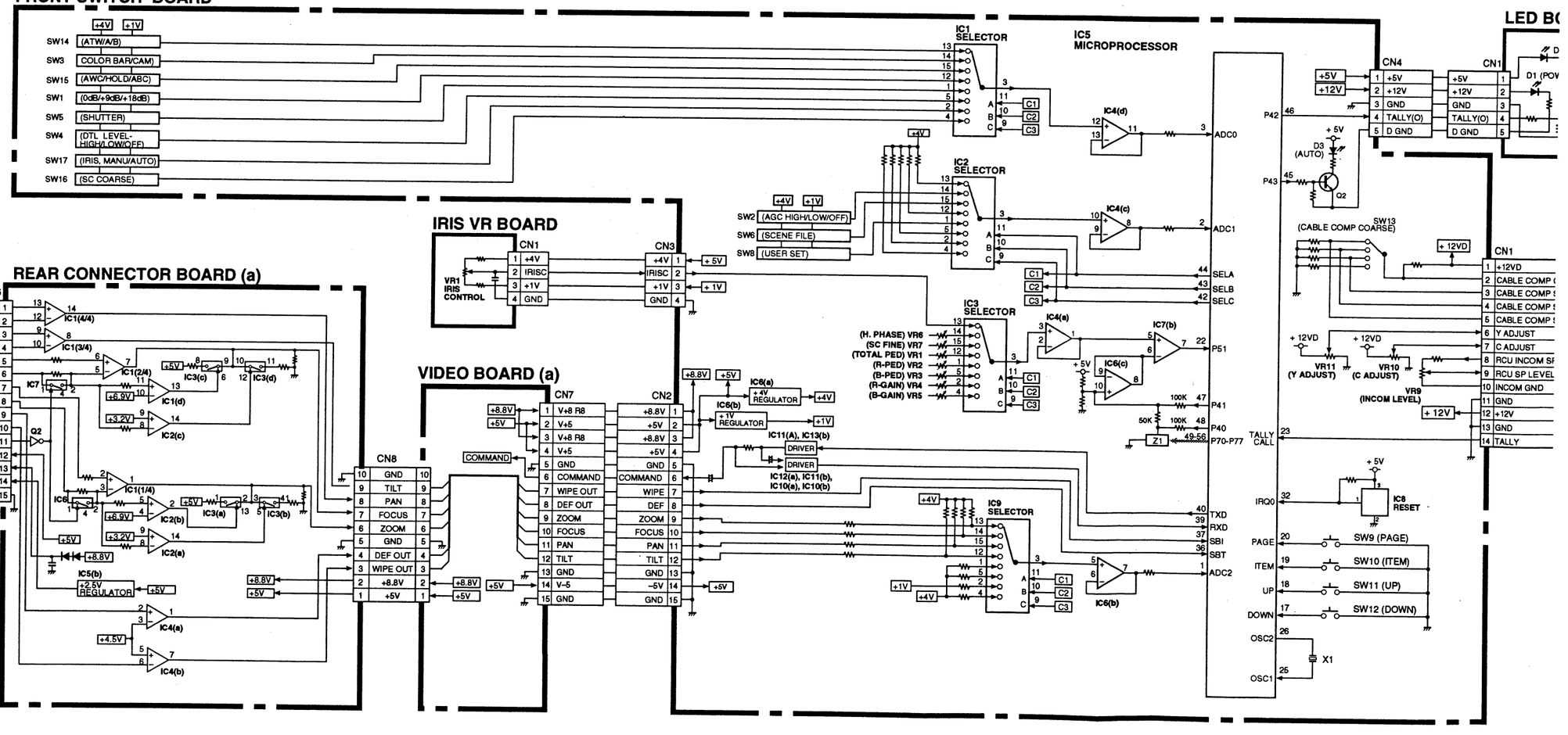


WIRING DIAGRAM

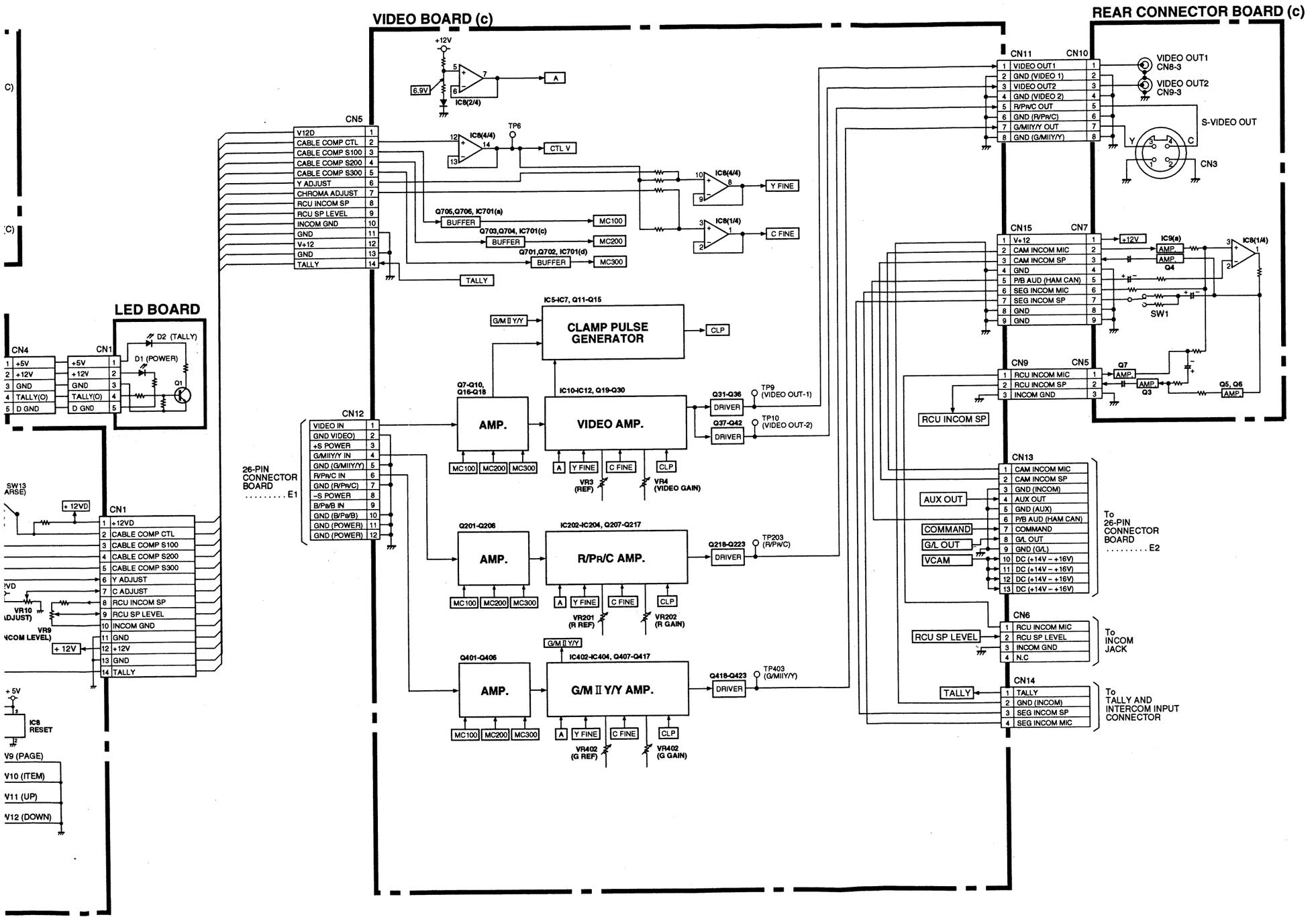


OVERALL BLOCK DIA

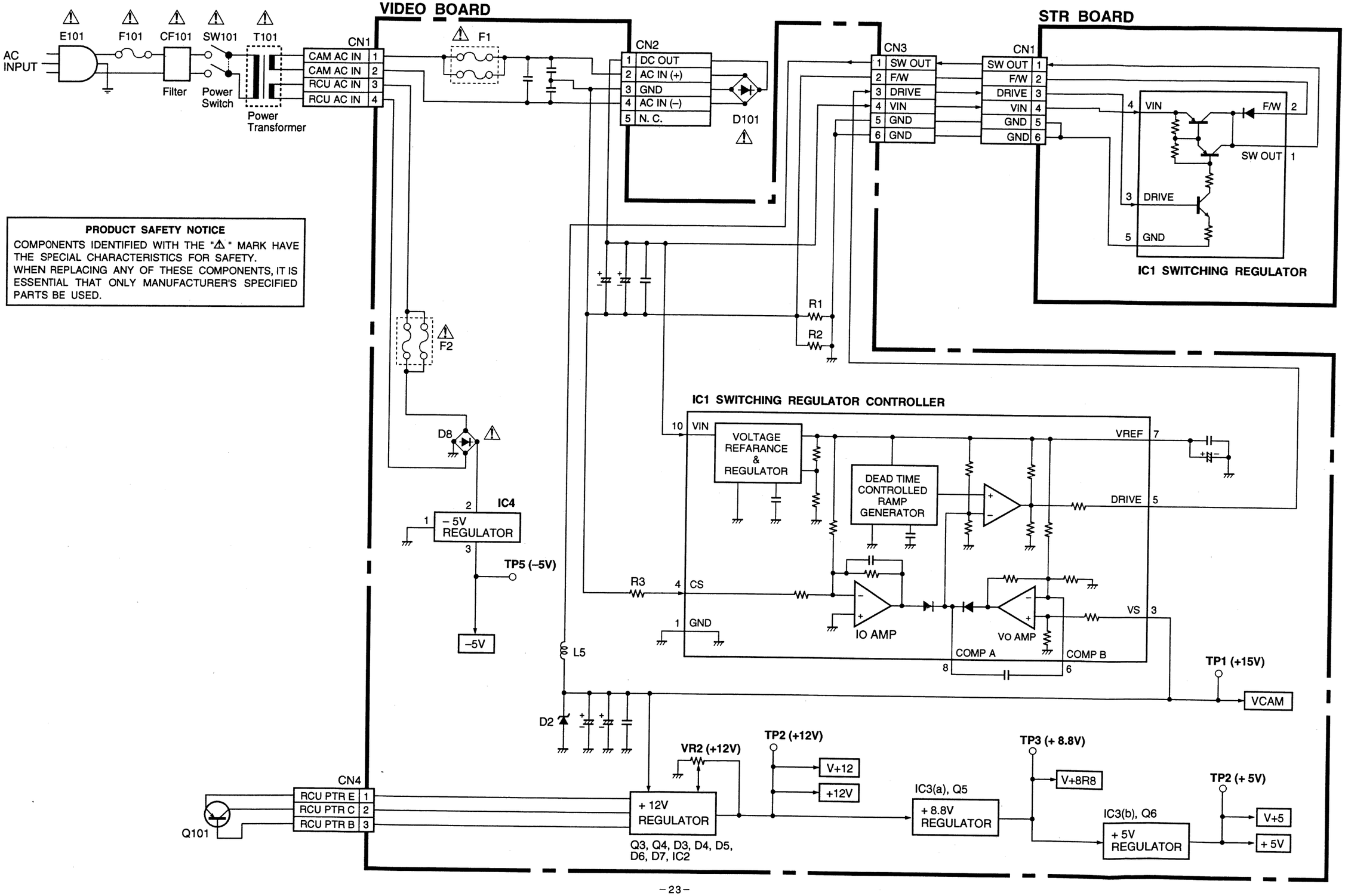




BLOCK DIAGRAM



BLOCK DIAGRAM OF POWER SUPPLY SECTION



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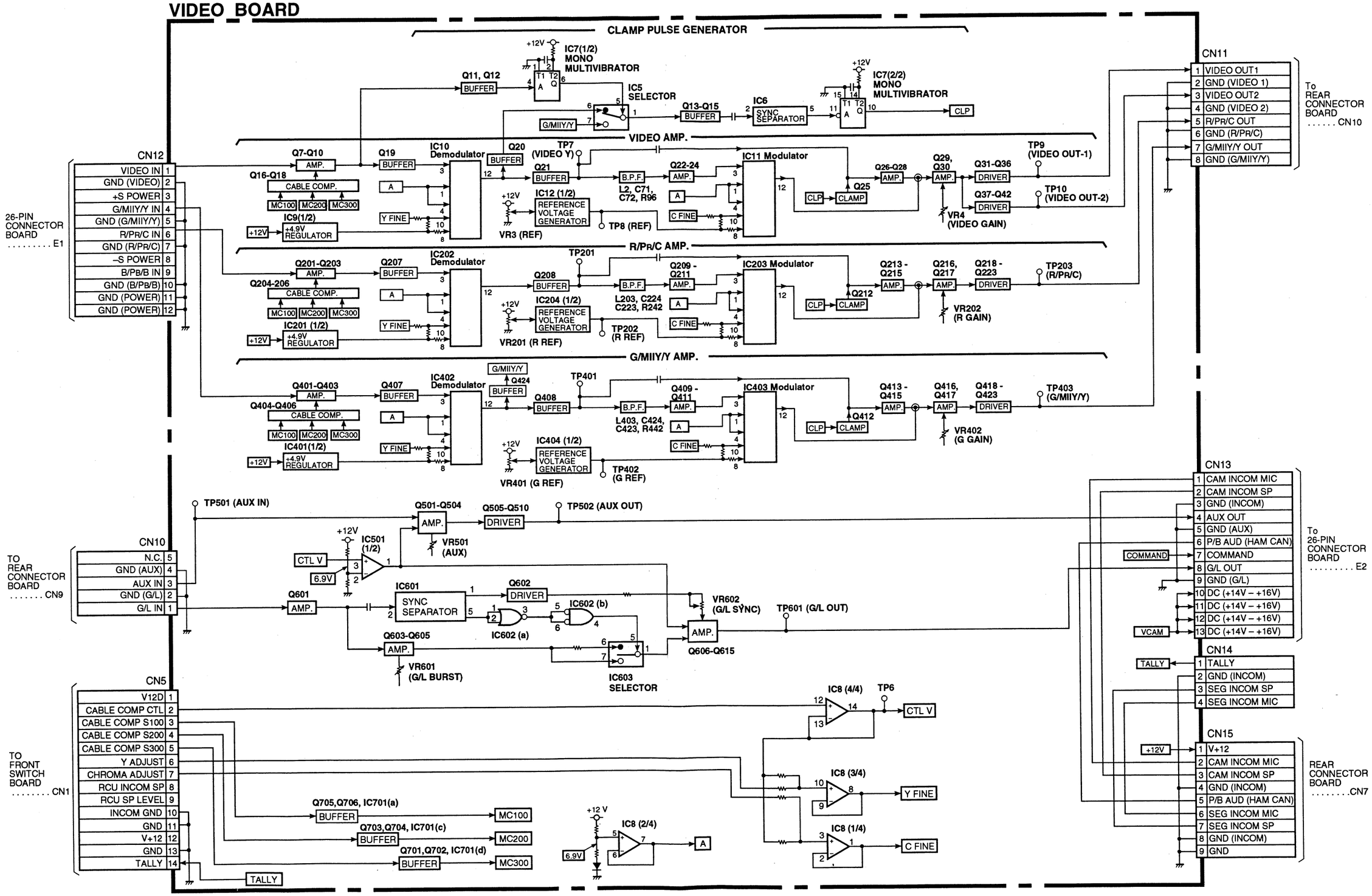
26-PIN CONNECTOR BOARD E1

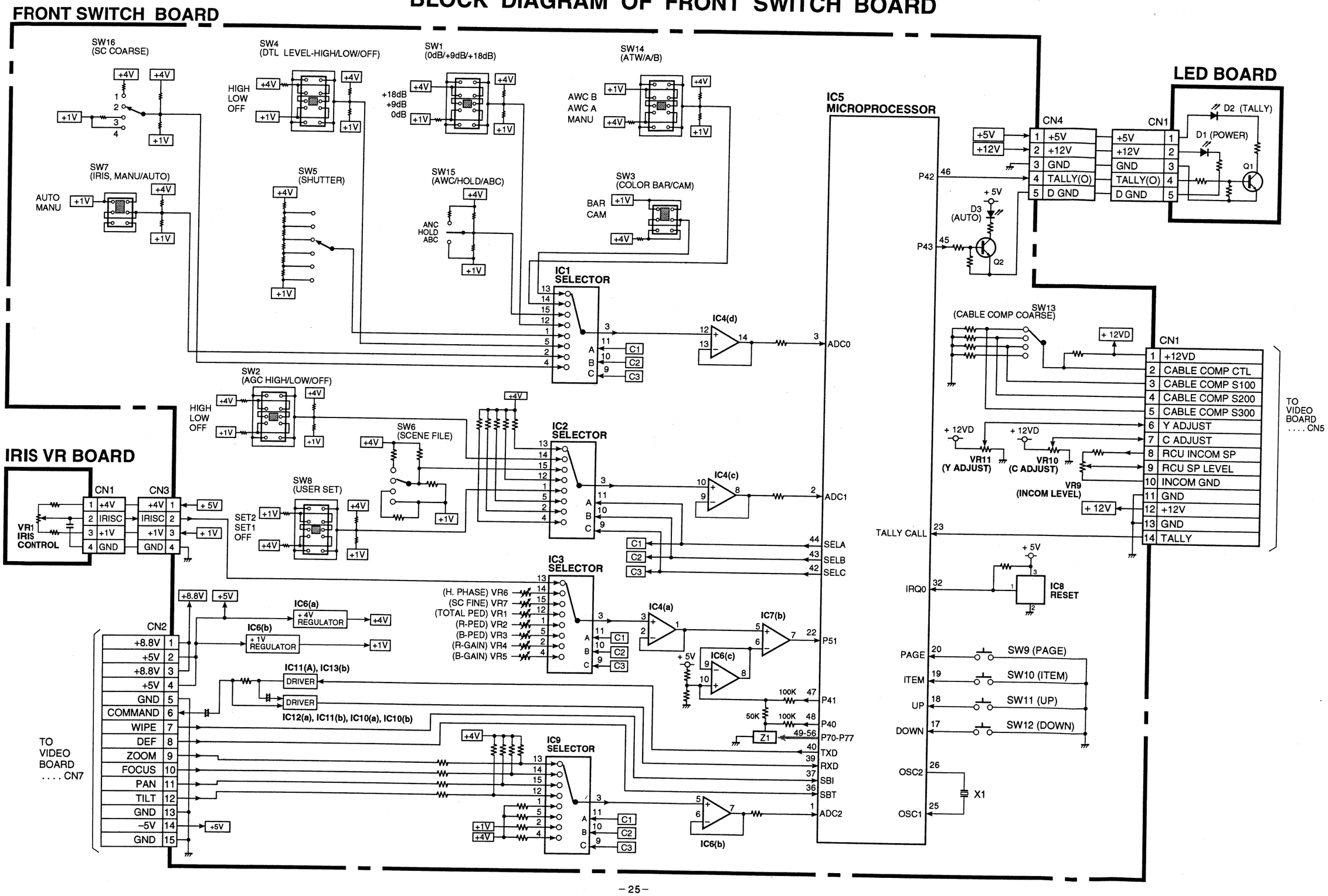
TO REAR CONNECTOR BOARD CN9

TO FRONT SWITCH BOARD CN1

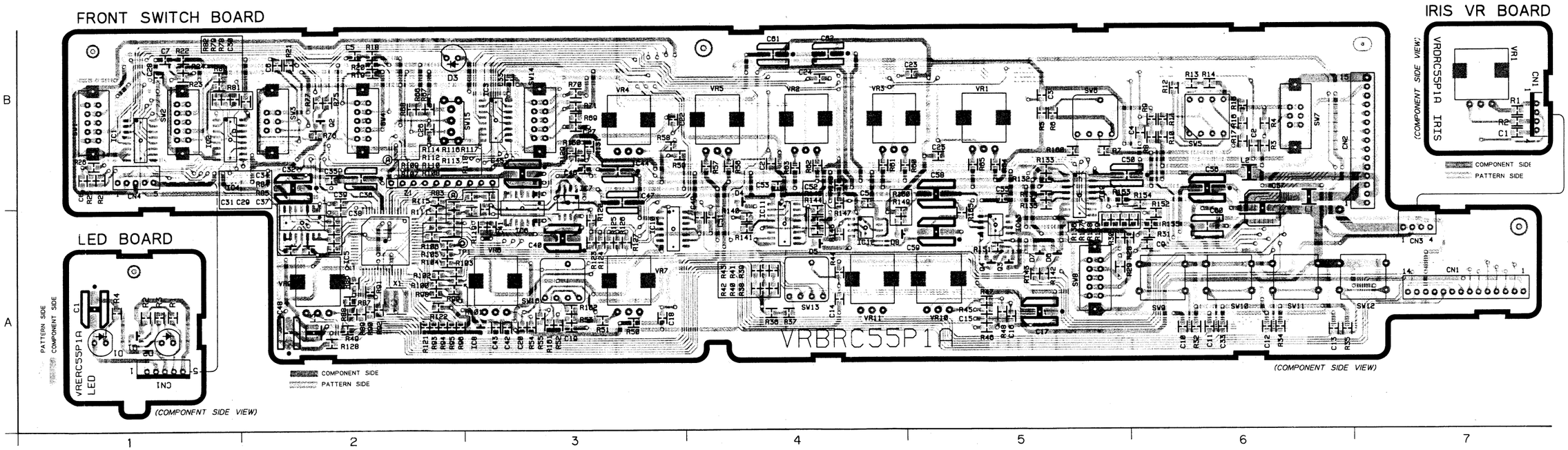
BLOCK DIAGRAM OF VIDEO BOARD



BLOCK DIAGRAM OF FRONT SWITCH BOARD



CONDUCTOR VIEW OF FRONT SWITCH BOARD



<Index>

FRONT SWITCH BOARD

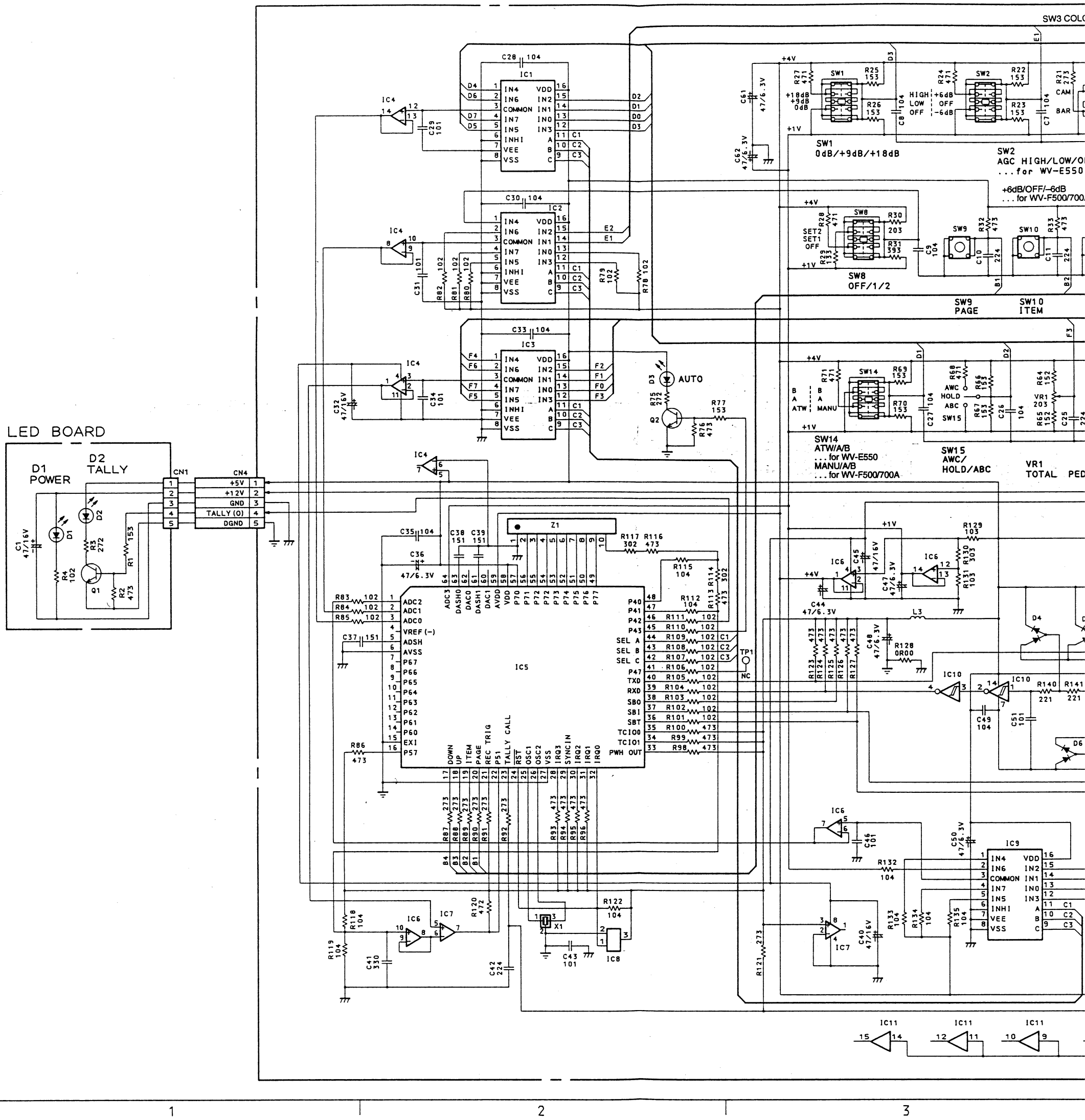
IC1	B1	Q2	B2
IC2	B1	Q3	A5
IC3	B3	Q4	A5
IC4	A2	D3	B2
IC5	A2	D4	B4
IC6	A3	D5	A4
IC7	B3	D6	A5
IC8	A3	D7	A5
IC9	B5	D8	A4
IC10	A3		
IC11	A4		
IC12	A4		
IC13	A5		

<Index>

LED BOARD

Q1	A1
D1	A1
D2	A1

SCHEMATIC DIAGRAM OF FRONT SWI



FRONT SWITCH BOARD

	IC1	IC2	IC3	IC4	IC6	IC7	IC8	IC9	IC10	IC11	IC12	IC13
Pin 1	1.0	4.1	2.5	2.5	4.1	1.2	5.2	4.1	5.2	5.2	5.2	3.0
2	3.1	4.1	2.6	2.5	4.1	0	0	1.1	0	4.9	1.9	2.4
3	1.2	4.0	2.5	2.5	4.1	5.2	5.2	2.9	0	5.2	2.4	2.4
4	1.0	4.1	2.5	8.8	8.8	0		4.1	5.2	5.2	0	-5.0
5	1.0	4.1	2.6	5.2	2.9	2.5		4.1	0	5.2	5.2	5.2
6	0	0	0	0	2.9	2.5		0	5.2	0	0	0
7	0	0	0	7.7	2.9	0.6		0	0	0	0.5	4.7
8	0	0	0	4.0	2.5	8.8		0	5.2	0	5.2	5.2
9	0.4	0.4	0.4	4.0	2.5			0.4	0	0		
10	0.4	0.4	0.4	4.0	2.6			0.4	5.2	0		
11	0.4	0.4	0.4	0	0			0.4	0	0		
12	1.0	4.1	2.5	1.2	1.0			2.7	5.2	0		
13	1.0	4.1	2.5	1.2	1.0			2.9	0	0.9		
14	4.0	1.0	2.6	1.2	1.0			2.9	5.2	0		
15	2.6	1.0	2.4					2.7		0		
16	5.2	5.2	5.2					5.2		-		

	IC5
Pin 1	2.9
2	4.0
3	1.2
4	1.0
5	2.8
6	0
7	0
8	5.2
9	5.2
10	0
11	5.2
12	0
13	5.2
14	0
15	0
16	5.1

	IC5
Pin 33	5.1
34	5.1
35	5.1
36	0
37	0
38	5.1
39	5.1
40	5.2
41	0
42	0.4
43	0.4
44	0.4
45	0
46	0
47	0.2
48	5.0

	IC5
17	5.1
18	5.1
19	5.1
20	5.1
21	5.2
22	0.4
23	5.1
24	5.2
25	2.7
26	2.7
27	0
28	5.1
29	5.2
30	5.2
31	5.1
32	5.2

	IC5
49	9
50	4.9
51	4.8
52	4.9
53	-
54	-
55	-
56	4.8
57	5.2
58	5.2
59	4.1
60	-
61	-
62	-
63	-
64	1.0

	B	C	E
Q2	0	3.6	0
3	3.0	5.2	2.4
4	3.0	-4.9	2.4

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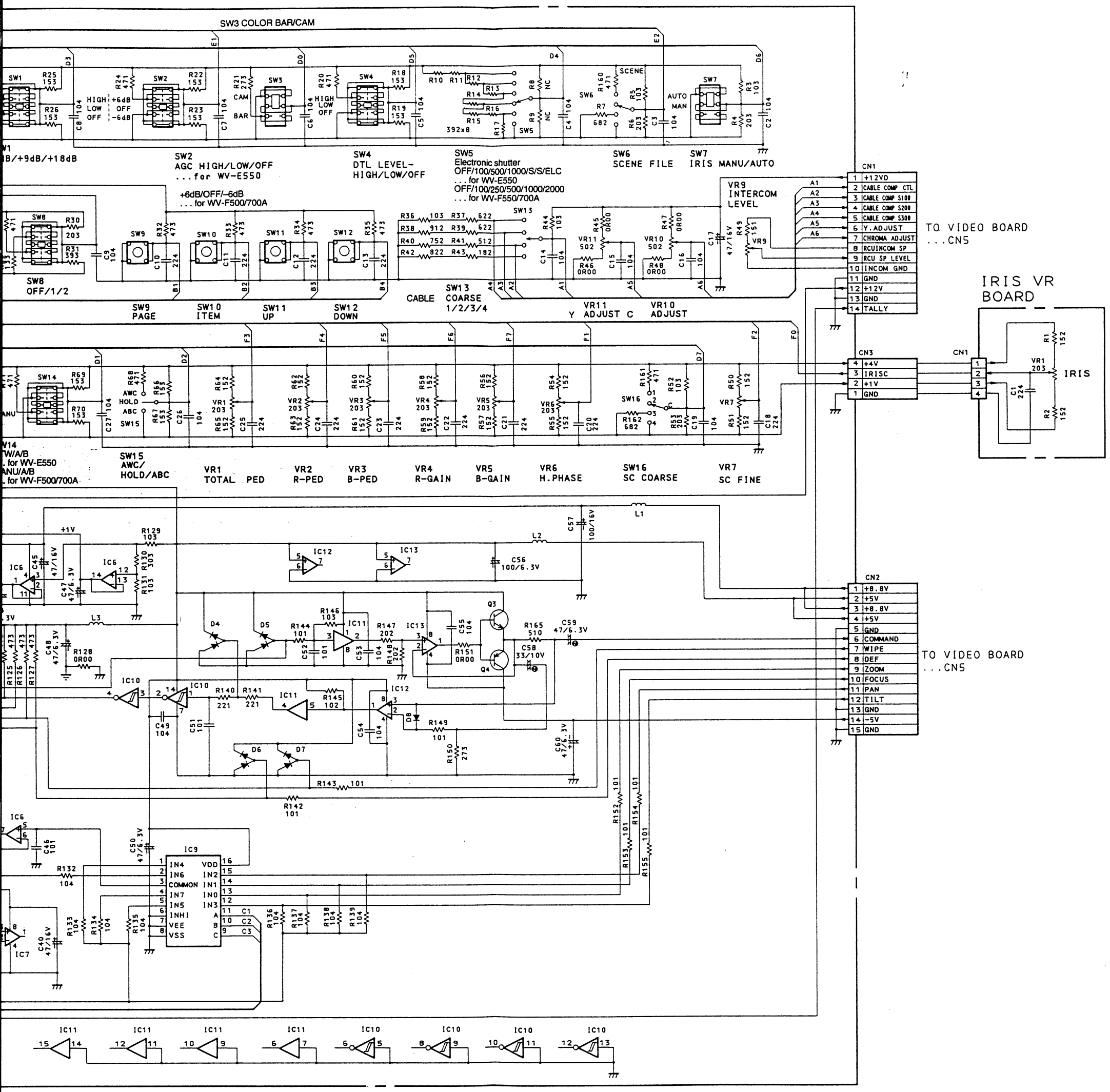
LED BOARD

Q1 B1
D1 B1
D2 B1

RAM OF FRONT SWITCH BOARD



<Index>

FRONT SWITCH BOARD

IC1	C2	Q2	B2
IC2	C2	Q3	B4
IC3	B2	Q4	B4
IC4	B2, C2	D3	B2
IC5	B2	D4	B3
IC6	A2, A3, B3	D5	B3
IC7	A2, A3	D6	A3
IC8	A2	D7	A4
IC9	A3	D8	B4
IC10	A4, B3		
IC11	A3, A4, B4		
IC12	B4		
IC13	B4		

Note: The value indicated in schematic diagram should be read as follows:

□ □ □
- Multiplier (0 - 5)
- 2nd. Significant Digit (0 - 9)
- 1st. Siginificant Digit (1 - 9)

<Example>

For Resistor:

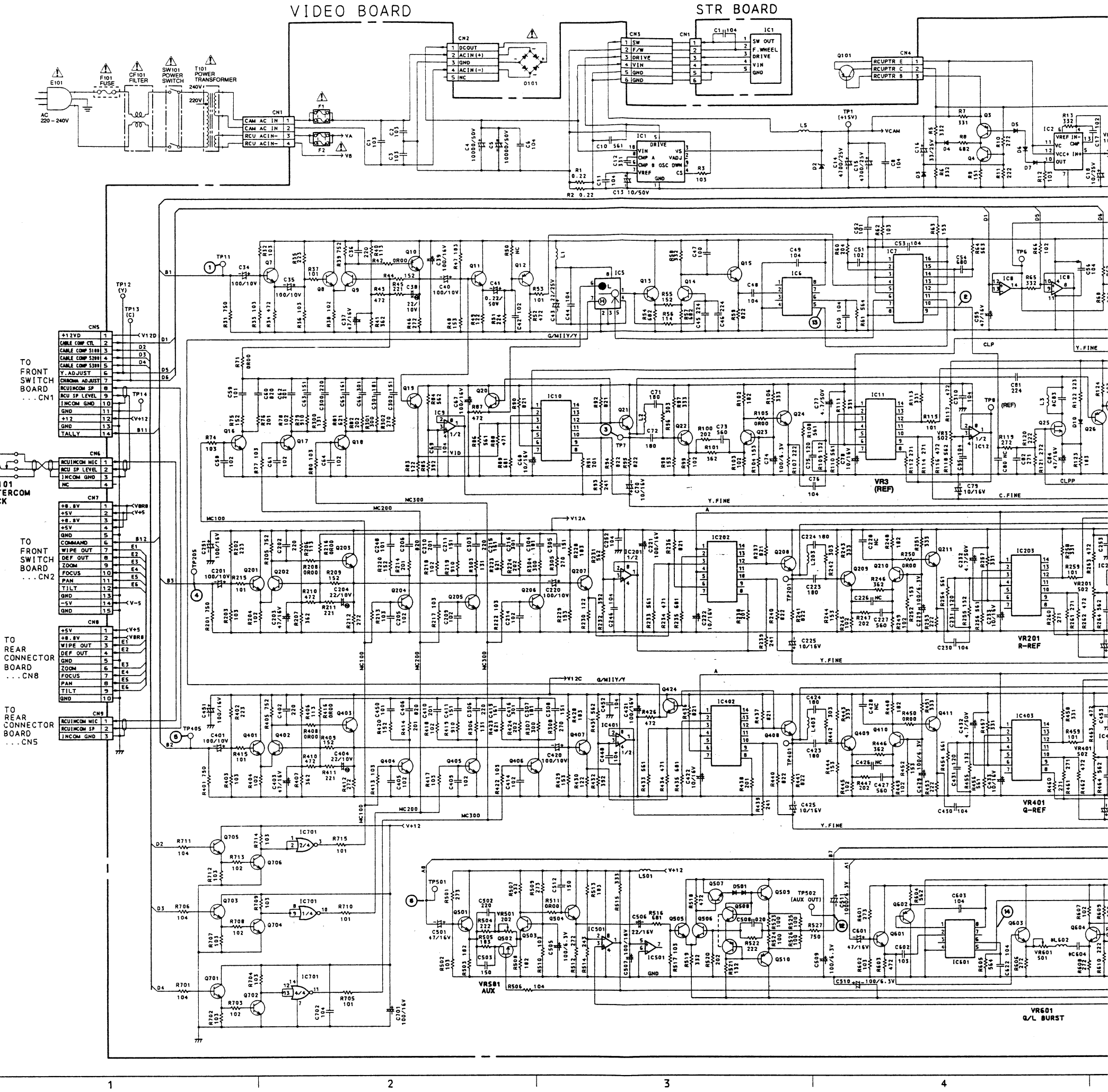
330 → 33 x 10^0 = 33Ω
561 → 56 x 10^1 = 560Ω
123 → 12 x 10^3 = 12kΩ
0R00 = 0 Ω

For Capacitor:

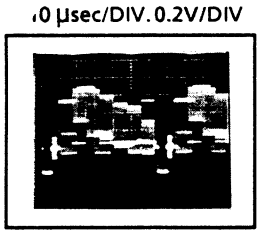
820 → 82 x 10^0 = 82pF
102 → 10 x 10^2 = 1000pF = 0.001μF
104 → 10 x 10^4 = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.

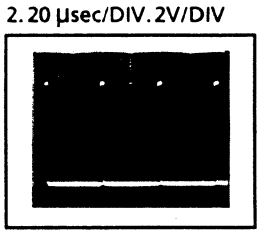
SCHEMATIC DIAGRAM OF VI



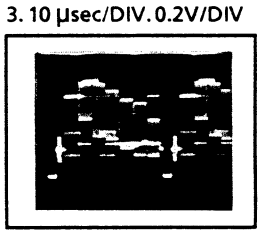
1. 10 µsec/DIV. 0.2V/DIV



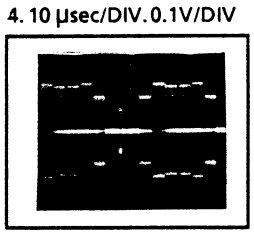
2. 20 µsec/DIV. 2V/DIV



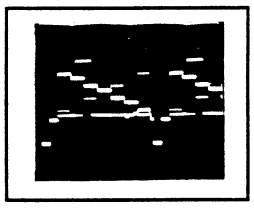
3. 10 µsec/DIV. 0.2V/DIV



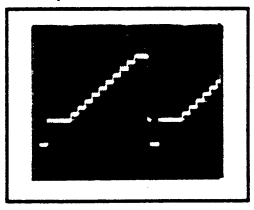
4. 10 µsec/DIV. 0.1V/DIV



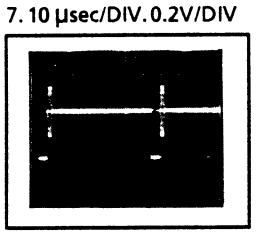
5. 10 µsec/DIV. 0.2V/DIV



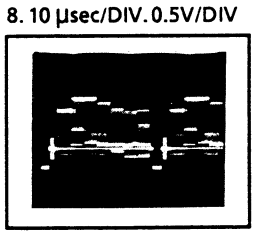
6. 10 µsec/DIV. 0.2V/DIV



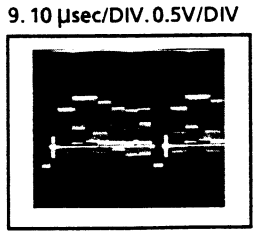
7. 10 µsec/DIV. 0.2V/DIV



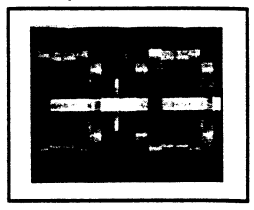
8. 10 µsec/DIV. 0.5V/DIV



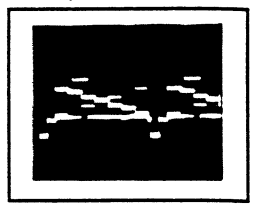
9. 10 µsec/DIV. 0.5V/DIV



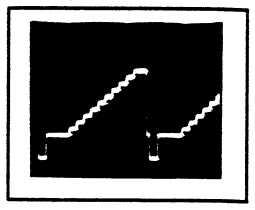
10. 10 µsec/DIV. 0.2V/DIV



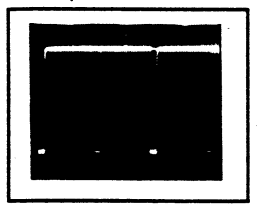
11. 10 µsec/DIV. 0.5V/DIV



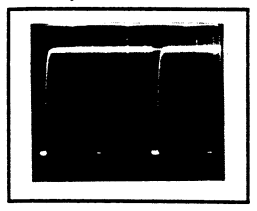
12. 10 µsec/DIV. 0.5V/DIV



13. 10 µsec/DIV. 2V/DIV



14. 10 µsec/DIV. 2V/DIV



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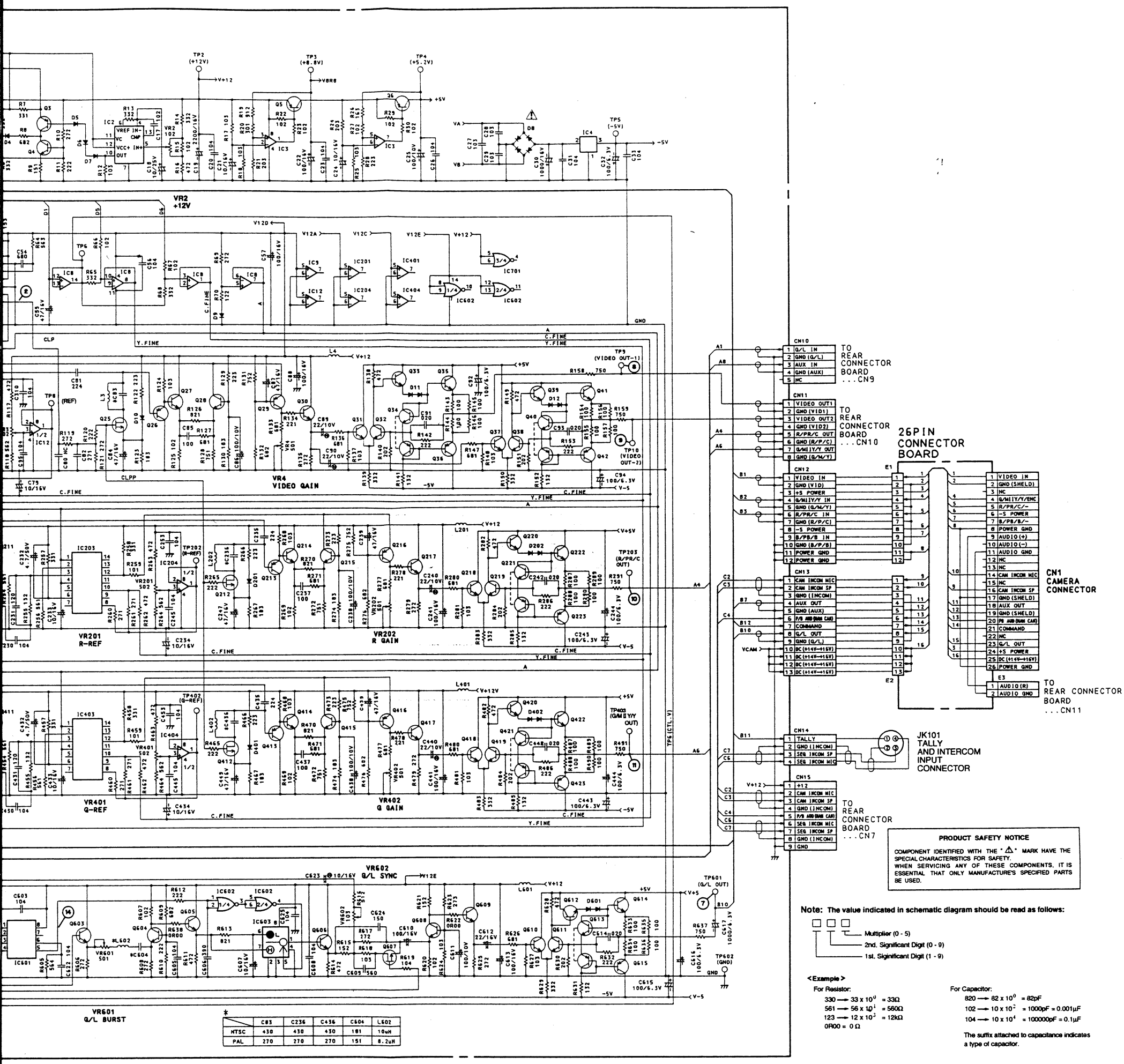
VIDEO BOARD

IC1	D3	Q3	D4	Q32	C5
IC2	D4	Q4	D4	Q33	C5
IC3	D5	Q5	D5	Q34	C5
IC4	D6	Q6	D5	Q35	C6
IC5	C3	Q7	C2	Q36	C6
IC6	C3	Q8	C2	Q37	C6
IC7	C4	Q9	C2	Q38	C6
IC8	C4, C5	Q10	C2	Q39	C6
IC9	C2, C5	Q11	C2	Q40	C6
IC10	C3	Q12	C2	Q41	C6
IC11	C4	Q13	C3	Q42	C6
IC12	C4, C5	Q14	C3	Q201	B1
IC201	B3, C5	Q15	C3	Q202	B2
IC202	B3	Q16	C1	Q203	B2
IC203	B4	Q17	C2	Q204	B2
IC204	B5, C5	Q18	C2	Q205	B2
IC401	B3, C5	Q19	C2	Q206	B2
IC402	B3	Q20	C2	Q207	B3
IC403	B4	Q21	C3	Q208	B3
IC404	B5, C5	Q22	C3	Q209	B4
IC501	A3	Q23	C3	Q210	B4
IC601	D4	Q24	C3	Q211	B4
IC602	A5, C6	Q25	C4	Q212	B5
IC603	A5	Q26	C5	Q213	B5
IC701	A2, C6	Q27	C5	Q214	B5
		Q28	C5	Q215	B5
		Q29	C5	Q216	B5
		Q30	C5	Q217	B5
		Q31	C5	Q218	B6

GRAM OF VIDEO BOARD



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The suffix attached to capacitance indicates a type of capacitor.

*

	C83	C236	C436	C604	L602
NTSC	430	430	430	181	10uH
PAL	270	270	270	151	8.2uH

D4	Q32	C5	Q219	B6	Q501	A2	Q705	A1
D4	Q33	C5	Q220	B6	Q502	A2	Q706	A1
D5	Q34	C5	Q221	B6	Q503	A2	D2	D4
D5	Q35	C6	Q222	B6	Q504	A3	D3	D4
C2	Q36	C6	Q223	B6	Q505	A3	D4	D4
C2	Q37	C6	Q401	B1	Q506	A3	D5	D4
C2	Q38	C6	Q402	B2	Q507	A3	D6	D4
C2	Q39	C6	Q403	B2	Q508	A3	D7	D4
C2	Q40	C6	Q404	B2	Q509	A3	D8	D6
C2	Q41	C6	Q405	B2	Q510	A3	D9	C5
C3	Q42	C6	Q406	B2	Q601	A4	D10	C4
C3	Q201	B1	Q407	B3	Q602	A4	D11	C5
C3	Q202	B2	Q408	B3	Q603	A4	D12	C6
C1	Q203	B2	Q409	B4	Q604	A5	D101	D2
C2	Q204	B2	Q410	B4	Q605	A5	D201	B5
C2	Q205	B2	Q411	B4	Q606	A5	D202	B6
C2	Q206	B2	Q412	B5	Q607	A5	D401	B5
C2	Q207	B3	Q413	B5	Q608	A6	D402	B6
C3	Q208	B3	Q414	B5	Q609	A6	D501	A3
C3	Q209	B4	Q415	B5	Q610	A6		
C3	Q210	B4	Q416	B5	Q611	A6		
C3	Q211	B4	Q417	B5	Q612	A6		
C4	Q212	B5	Q418	B6	Q613	A6		
C5	Q213	B5	Q419	B6	Q614	A6		
C5	Q214	B5	Q420	B6	Q615	A6		
C5	Q215	B5	Q421	B6	Q701	A1		
C5	Q216	B5	Q422	B6	Q702	A1		
C5	Q217	B5	Q423	B6	Q703	A1		
C5	Q218	B6	Q424	B3	Q704	A1		

VIDEO BOARD

	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC8	IC9	IC10	IC11	IC12	IC201	IC202	IC203	IC204	IC401	IC402	IC403	IC404	IC601	IC602	IC603	IC701
Pin 1	26.9	-	10.3	0	7.4	10.9	0	6.2	4.9	4.2	4.2	6.5	4.9	4.2	4.2	6.5	4.9	4.2	4.2	6.5	10.9	10.6	10.5	12.0
2	1.8	-	6.0	-8.6	0	2.6	3.0	6.2	4.9	3.4	3.4	6.5	4.9	3.4	3.4	6.5	4.9	3.4	3.4	6.5	1.7	10.6	0	12.0
3	1.9	-	6.0	-4.9	0	11.8	11.9	6.2	4.9	3.4	3.4	6.5	4.9	3.4	3.4	6.5	4.9	3.4	3.4	6.5	11.8	0.7	0	0
4	5.0	6.9	0		0	0	1.3	11.9	0	4.2	4.2	0	0	4.2	4.2	0	0	4.2	4.2	0	0	11.3	0	0
5	3.0	6.9	2.9		11.9	10.6	11.9	4.2	11.9	-	-	11.9	12.0	-	-	12.0	12.0	-	-	12.0	10.6	0.7	11.3	12.0
6	1.5	6.9	2.9		7.5	1.2	11.9	4.2	0	7.9	9.9	0	0	8.3	10.0	0	0	8.4	9.9	0	1.2	0.7	10.5	12.0
7	2.4	0	7.2		8.1	1.6	0	4.2	11.2	-	-	11.2	11.3	-	-	11.3	11.3	-	-	11.3	1.6	0	10.5	0
8	15.1	-	12.0		11.9	11.9	0	5.9	11.9	4.9	6.5	11.9	12.0	4.9	6.5	12.0	12.0	4.9	6.5	12.0	12.0	12.0	12.0	12.0
9	3.0	7.1					11.1	5.9		-	-			-	-			-	-			12.0		12.0
10	0	12.5					0.7	5.9		4.9	6.5			4.9	6.4			4.9	6.5			0		0
11		15.1					10.6	0		-	-			-	-			-	-			0		0
12		15.1					0	5.9		8.0	7.2			8.7	7.2			8.7	7.2			12.0		12.0
13		13.8					11.9	5.9		-	-			-	-			-	-			12.0		12.0
14		-					8.4	5.9		-	-			-	-			-	-			12.0		12.0
15							0																	
16							11.9																	

	Q34	Q40	Q221	Q421	Q508	Q613
Pin 1	0.6	0.6	0.6	0.5	0.5	0.5
2	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8
3	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
4	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8
5	0.6	0.6	0.5	0.5	0.5	0.5
6	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2

VIDEO BOARD

	B	C	E
Q2	14.4	12.0	15.1
3	13.8	1.0	14.4
4	1.7	1.0	1.0
5	11.4	8.8	12.0
6	8.2	5.2	8.8
7	6.0	11.9	5.4
8	3.6	11.9	2.9
9	3.6	4.5	2.9
10	4.5	11.9	3.8
11	4.9	11.9	4.3
12	11.7	1.3	11.9
13	7.4	11.9	6.8
14	7.1	9.4	6.5
15	9.4	11.9	8.8
16	0	-	0
17	0	-	0
18	0	-	0
19	4.9	11.9	4.1
20	8.0	11.9	7.5
21	8.0	11.9	7.5
22	3.5	11.9	2.7
23	3.7	6.3	3.1
24	6.3	11.9	5.6
25	(G) 0.4	(D) 5.4	(S) 5.2
26	5.4	0	5.9
27	5.9	11.9	5.4
28	5.2	6.4	4.5
29	5.7	3.0	6.4
30	3.0	11.9	2.5
31	-0.1	5.2	-0.7
32	-0.1	2.6	-0.7
33	2.6	5.2	2.1
35	0.6	5.2	-0.1
36	-0.7	-4.9	-0.2
37	-0.1	5.2	-0.7
38	-0.1	2.6	-0.7
39	2.6	5.2	2.0
41	0.6	5.2	-0.1

	B	C	E
Q42	-0.8	-4.9	-0.2
201	3.7	12.0	3.1
202	3.8	4.6	3.1
203	4.6	12.0	4.0
204	0	-	0
205	0	-	0
206	0	-	0
207	5.2	12.0	4.6
208	8.7	12.0	8.2
209	3.4	12.0	2.7
210	3.6	6.3	3.0
211	6.3	12.0	5.7
212	(G) 0.4	(D) 5.1	(S) 5.1
213	5.2	0	5.7
214	5.7	12.0	5.1
215	5.2	6.4	4.5
216	5.7	2.5	6.4
217	2.5	12.0	2.0
218	-0.1	5.2	-0.7
219	-0.1	2.7	-0.7
220	2.7	5.2	2.0
222	0.6	5.2	-0.1
223	-0.8	-4.9	-0.2
401	3.8	12.0	3.1
402	3.8	4.6	3.1
403	4.6	12.0	4.0
404	0	-	0
405	0	-	0
406	0	-	0
407	5.2	12.0	4.6
408	8.7	12.0	8.1
409	3.4	12.0	2.7
410	3.6	6.3	3.0
411	6.3	12.0	5.7
412	(G) 0.4	(D) 5.4	(S) 5.2
413	5.4	0	6.0
414	6.0	12.0	5.4
415	5.2	6.4	4.6

	B	C	E
Q416	5.7	2.6	6.4
417	2.6	12.0	2.0
418	-0.1	5.2	-0.8
419	-0.1	2.7	-0.8
420	2.7	5.2	1.9
422	0.5	5.2	-0.1
423	-0.8	-4.9	-0.2
424	8.7	12.0	8.1
501	3.2	12.0	2.6
502	(G) 0	(D) 2.6	(S) 2.5
503	3.2	5.8	2.5
504	5.8	12.0	5.2
505	-0.1	5.2	-0.8
506	-0.1	2.7	-0.8
507	2.7	5.2	2.0
509	0.5	5.2	-0.1
510	-0.8	-4.9	-0.1
601	3.3	12.0	2.7
602	10.9	0	10.3
603	2.7	12.0	2.1
604	2.9	11.1	2.3
605	11.1	12.0	10.5
606	10.5	12.0	9.9
607	(G) 0	(D) 9.9	(S) 9.9
608	3.2	8.1	2.6
609	8.1	12.0	7.5
610	-0.1	5.2	-0.8
611	-0.1	2.7	-0.8
612	2.7	5.2	1.9
614	0.5	5.2	-0.1
615	-0.8	-4.9	-0.2
701	0	12.0	0
702	0	12.0	0
703	0	12.0	0
704	0	12.0	0
705	0	12.0	0
706	0	12.0	0

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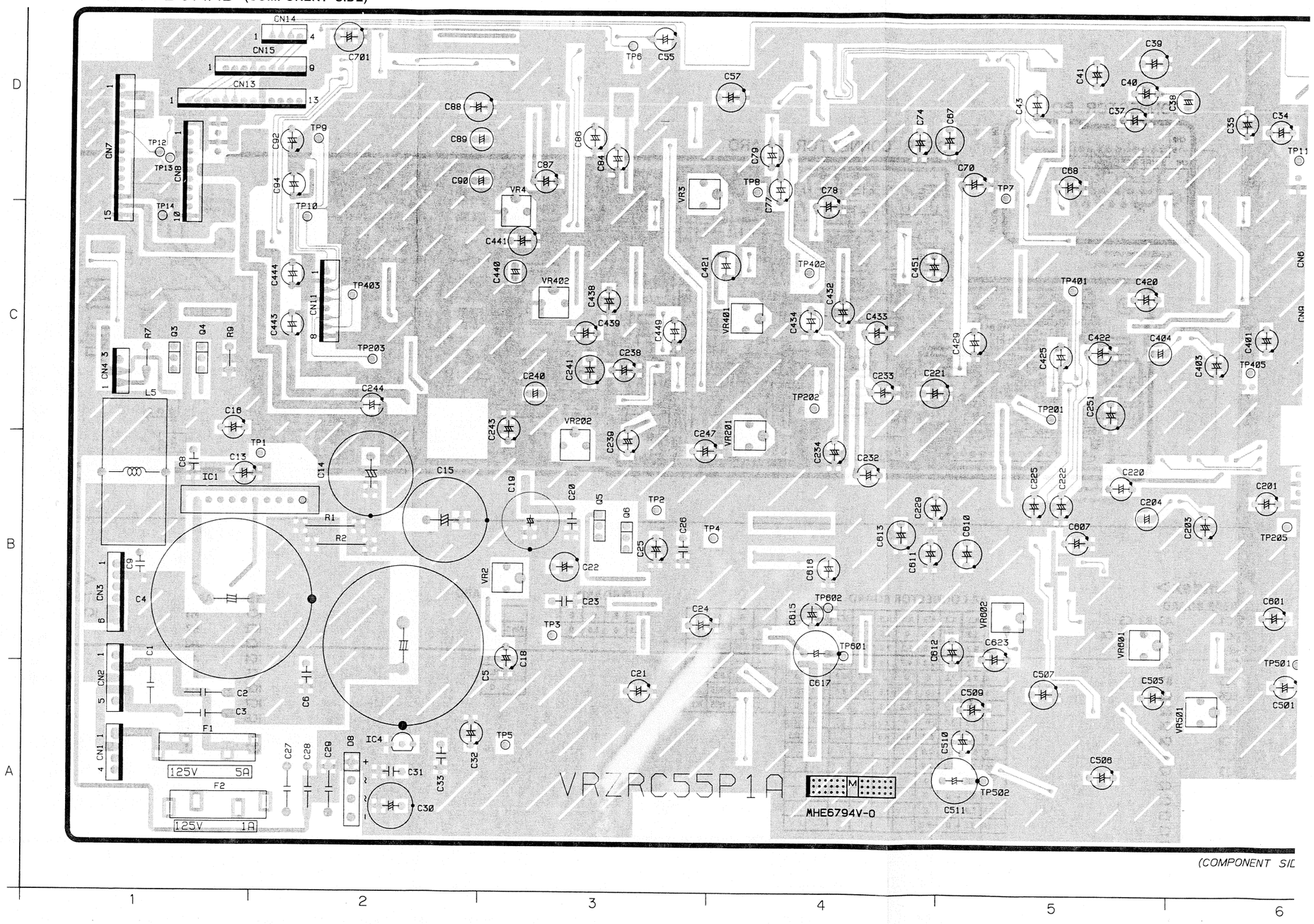
VIDEO BOARD

COMPONENT SIDE

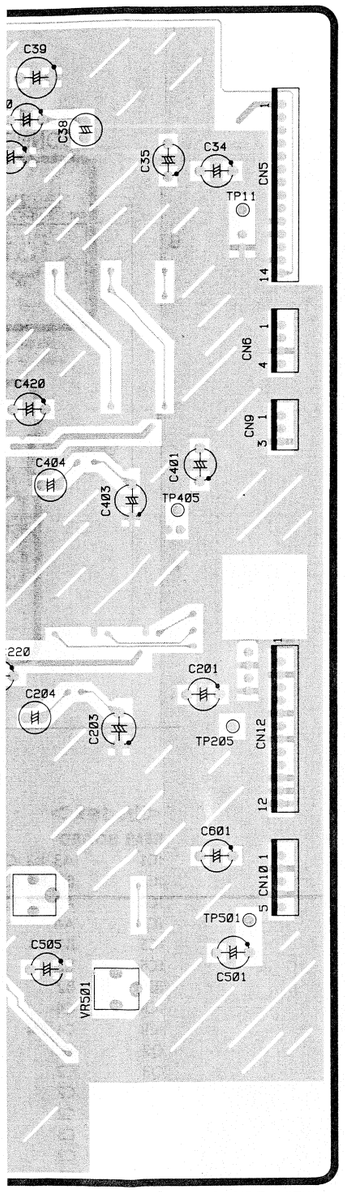
IC1	B1
IC4	A2
Q3	C1
Q4	C1
Q5	B3
Q6	B3
D2	B2
D8	A2

VIDEO BOARD (COMPONENT SIDE)



(COMPONENT SIDE)

VIEW OF VIDEO BOARD



(COMPONENT SIDE VIEW)

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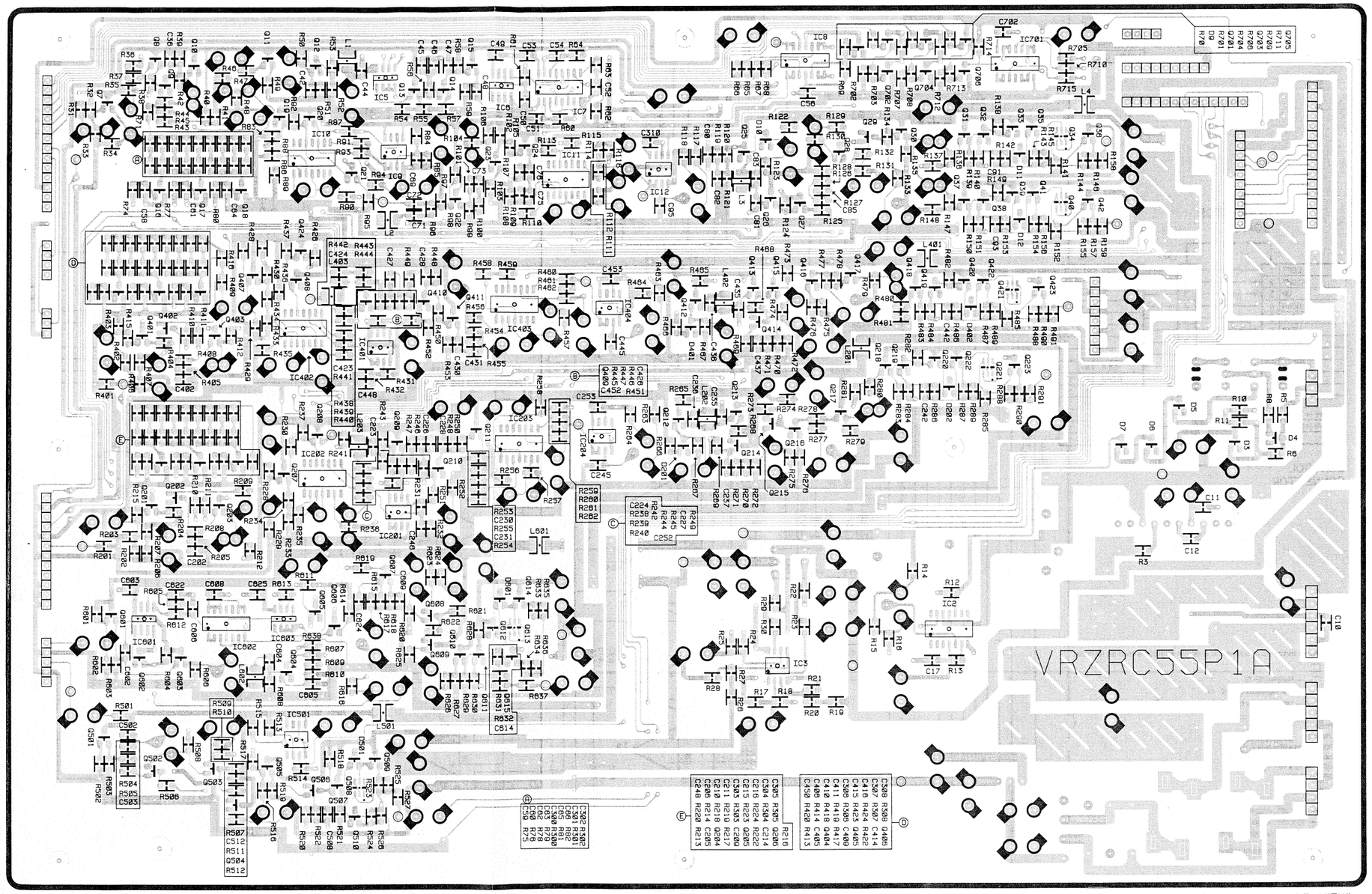
VIDEO BOARD
PATTERN SIDE

IC2	B5
IC3	B4
IC5	D2
IC6	D3
IC7	D3
IC8	D4
IC9	D2
IC10	D2
IC11	D3
IC12	D3
IC201	B2
IC202	B2
IC203	C3
IC204	C3
IC401	C2
IC402	C2
IC403	C3
IC404	C3
IC501	A2
IC601	B1
IC602	B2
IC603	B2
IC701	D5
Q7	D1
Q8	D1
Q9	D1
Q10	D1
Q11	D2
Q12	D2
Q13	D2
Q14	D3
Q15	D3
Q16	D1
Q17	D2
Q18	D2
Q19	D2
Q20	D2
Q21	D2
Q22	D3
Q23	D3
Q24	D3
Q25	D4
Q26	D4
Q27	D4
Q28	D4
Q29	D4
Q30	D4
Q31	D5
Q32	D5
Q33	D5
Q34	D5
Q35	D5
Q36	D5
Q37	D5
Q38	D5
Q39	D5
Q40	D5
Q41	D5
Q42	D5
Q201	B1
Q202	B1
Q203	B2
Q204	B1
Q205	B2
Q206	B2
Q207	B2

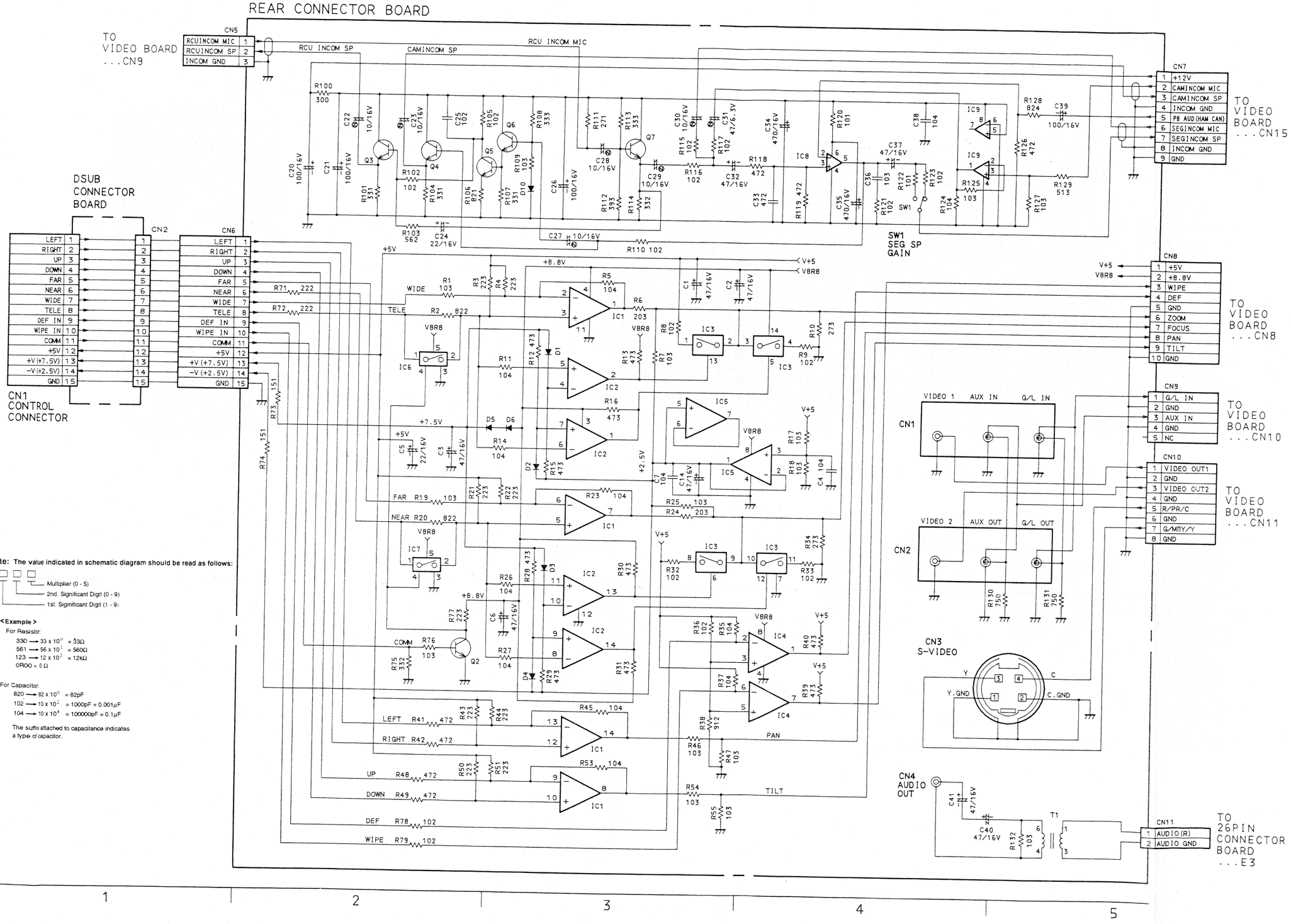
VIDEO BOARD (PATTERN SIDE)



(PATTERN SIDE VIEW)

Q208	C2	Q215	C4	Q222	C5	Q406	C2	Q413	C4	Q420	C5	Q503	A2	Q510	A2	Q607	B2	Q614	B3	Q706	D5	D10	D4	D501	A2
Q209	C2	Q216	C4	Q223	C5	Q407	C2	Q414	C4	Q421	C5	Q504	A2	Q601	B1	Q608	B2	Q615	B3	D3	C5	D11	D5	D601	B3
Q210	C3	Q217	C4	Q401	C1	Q408	C2	Q415	C4	Q422	C5	Q505	A2	Q602	B1	Q509	B2	Q701	D4	D4	C5	D12	C5		
Q211	C3	Q218	C4	Q402	C1	Q409	C2	Q416	C4	Q423	C5	Q506	A2	Q603	B1	Q610	B3	Q702	D4	D5	C5	D201	C4		
Q212	C3	Q219	C4	Q403	C2	Q410	C2	Q417	C4	Q424	C2	Q507	A2	Q604	B2	Q611	B3	Q703	D5	D6	C5	D202	C5		
Q213	C4	Q220	C5	Q404	C1	Q411	C3	Q418	C4	Q501	A1	Q508	A2	Q605	B2	Q612	B3	Q704	D5	D7	C5	D401	C4		
Q214	C4	Q221	C5	Q405	C1	Q412	C4	Q419	C5	Q502	A1	Q509	A2	Q606	B2	Q613	B3	Q705	D5	D9	D4	D402	C5		

SCHEMATIC DIAGRAM OF REAR CONNECTOR BOARD



Note: The value indicated in schematic diagram should be read as follows:

□ □ □
- Multiplier (0 - 5)
- 2nd. Significant Digit (0 - 9)
- 1st. Siginificant Digit (1 - 9)

<Example>

For Resistor:

330 ⟶ 33 x 10^{0} = 33Ω
561 ⟶ 56 x 10^{1} = 560Ω
123 ⟶ 12 x 10^{3} = 12kΩ
0R00 = 0Ω

For Capacitor:

820 ⟶ 82 x 10^{0} = 82pF
102 ⟶ 10 x 10^{2} = 1000pF = 0.001μF
104 ⟶ 10 x 10^{4} = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.

DSUB CONNEC

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REAR BOARD

IC1	A3, B3, C3
IC2	B3, B4, C3,
IC3	A3, B3, C3
IC4	A4
IC5	B3, B4
IC6	C2
IC7	B2
IC8	C4
IC9	C4, D4
Q2	A2
Q3	C2
Q4	C2
Q5	C2
Q6	C3
Q7	C3
D1	C3
D2	B3
D3	B3
D4	A3
D5	B3
D6	B3
D10	C3

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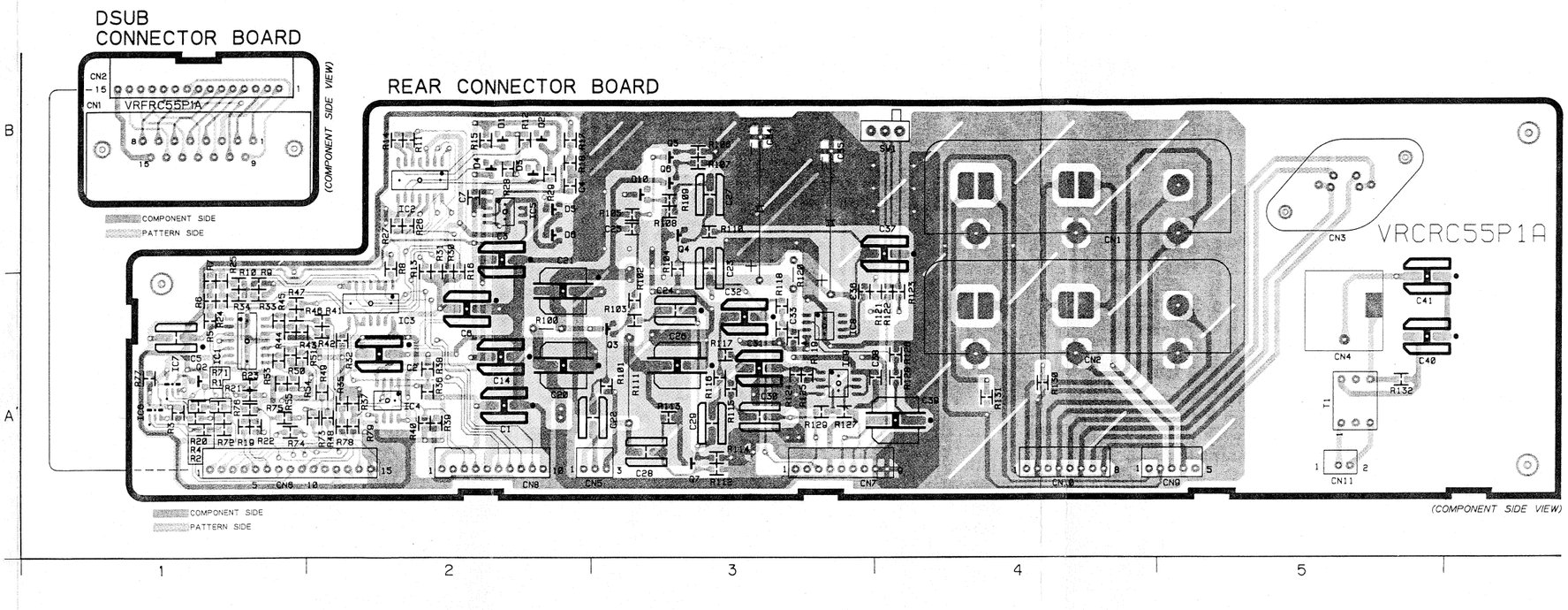
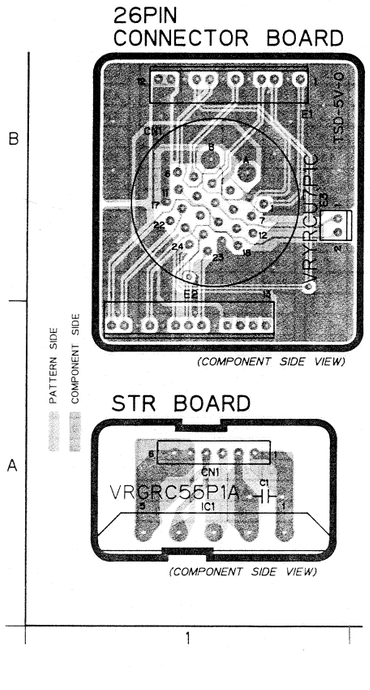
STR BOARD

IC1	D3

CONDUCTOR VIEW OF REAR CONNECTOR BOARD





<Index>

REAR BOARD

IC1	A3, B3, C3
IC2	B3, B4, C3, C4
IC3	A3, B3, C3
IC4	A4
IC5	B3, B4
IC6	C2
IC7	B2
IC8	C4
IC9	C4, D4
Q2	A2
Q3	C2
Q4	C2
Q5	C2
Q6	C3
Q7	C3
D1	C3
D2	B3
D3	B3
D4	A3
D5	B3
D6	B3
D10	C3

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STR BOARD

IC1	D3

REAR CONNECTOR BOARD

	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC8	IC9
Pin 1	5.2	0	5.2	0	2.6	5.2	5.2	1.3	0
2	5.2	0	2.8	5.2	2.6	5.2	5.2	0	0
3	5.2	8.8	2.9	4.7	2.6	0	0	0	0
4	8.8	7.2	0	0	0	8.8	8.8	4.8	0
5	5.2	5.1	0	4.7	2.6	8.8	8.8	10.1	10.5
6	5.2	5.1	0	5.2	2.6			5.0	0
7	5.2	3.1	0	0	2.6			1.3	9.3
8	5.2	5.1	5.2	8.8	8.8				10.5
9	5.2	3.1	2.9						
10	5.2	7.2	2.9						
11	0	5.1	0						
12	5.2	0	0						
13	5.2	0	0						
14	5.2	0	8.8						

	B	C	E
Q2	0	8.8	0
3	8.4	10.4	7.8
4	4.8	10.5	4.2
5	2.1	8.5	1.5
6	2.7	10.5	2.1
7	5.5	10.5	4.9

LED BOARD

	B	C	E
Q1	0	3.6	0

STR BOARD

	IC1
Pin 1	15.1
2	-0.1
3	1.5
4	26.8
5	0

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REAR BOARD

IC1	A1
IC2	B2
IC3	A2
IC4	A2
IC5	B2
IC6	A1
IC7	A1
IC8	A3
IC9	A3
Q2	A1
Q3	A3
Q4	B3
Q5	B3
Q6	B3
Q7	A3
D1	B2
D2	B2
D3	B2
D4	B2
D5	B2
D6	B2
D10	B3

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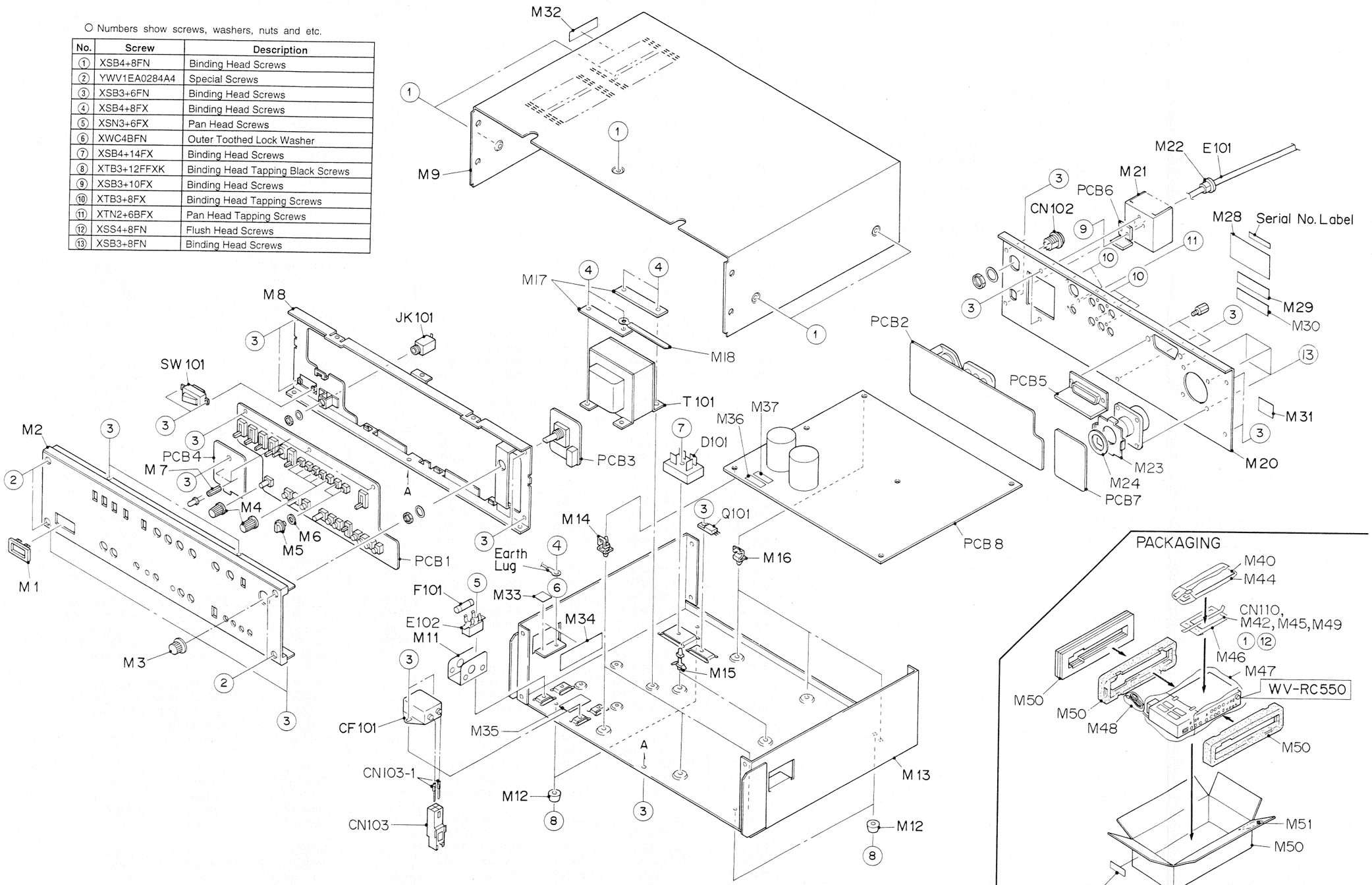
STR BOARD

IC1	A1

EXPLODED VIEW

○ Numbers show screws, washers, nuts and etc.

No.	Screw	Description
①	XSB4+8FN	Binding Head Screws
②	YWV1EA0284A4	Special Screws
③	XSB3+6FN	Binding Head Screws
④	XSB4+8FX	Binding Head Screws
⑤	XSN3+6FX	Pan Head Screws
⑥	XWC4BFN	Outer Toothed Lock Washer
⑦	XSB4+14FX	Binding Head Screws
⑧	XTB3+12FFXK	Binding Head Tapping Black Screws
⑨	XSB3+10FX	Binding Head Screws
⑩	XTB3+8FX	Binding Head Tapping Screws
⑪	XTN2+6BFX	Pan Head Tapping Screws
⑫	XSS4+8FN	Flush Head Screws
⑬	XSB3+8FN	Binding Head Screws



REPLACEMENT PARTS LIST

Important Notice

1. Components identified by " ⚠ " mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited.

REF.NO.	PART NO.	DESCRIPTION
MISCELLANEOUS		
Q101	2SB946-PQ	Transistor
D101 ⚠	S15VB20	Diode
T101 ⚠	YWPHB76V068	Power Transformer
SW101 ⚠	YWEST15147V	Power Switch
CF101 ⚠	YWZMB220113	Filter
JK101	YWLJ194-1-1	Socket
F101 ⚠	XBA2C08ET0A	Current Fuse 0.8A 250V
F1 ⚠	YFBET1A250V	Current Fuse 1A 250V
F2 ⚠	XBA2C50ET0A	Current Fuse 5A 250V
CN102	YFCNR-1204J	4-pin Connector
CN103	YW1762841	Connector Housing
CN103-1	YW1751532	Connector-pin
E101 ⚠	YWKPGTSA3A	AC Power Cord for WV-RC550/A
	YWGTBS2R5B	AC Power Cord for WV-RC550/B
	YWVM0309-08	AC Power Cord for WV-RC550/G
E102	YWX-N1153-07	Fuse Holder
BI101	YWVRCU550L01	Internal Wire Assy for D101 and Video Board CN2
BI102	YWVRCU550L03	Internal Wire Assy for Q101 and Video Board CN4
BI103	YWVRCU550L05	Internal Wire Assy for Incom Jack and Video Board CN6
BI104	YWVRCU550L13	Internal Wire Assy for Tally/Incom and Video Board CN14
M1	YWV5EA0765A3	Switch Cover
M2	YWV5WB1600A2	Front Panel
M3	YWV5RA0413A3	Iris Control Knob
M4	YWV5RA0279B3	Volume Knob
M5	YWV5RB0281A4	Switch Knob
M6	YWV2NA0368A4	Spacer
M8	YWV2KA0894A2	Front Chassis
M9	YWV5EA0837A1	Upper Cover
M11	YWV2PA0220B4	Insulator
M12	YWV5350WB01	Rubber Foot
M13	YWV2KA0893A1	Main Chassis
M14	YWKGES8	PCB Support
M15	YWKGLS4S	PCB Support
M16	YWPHD08	PCB Support
M17	YWV2CA0290A4	Hold Plate
M18	YWCS7	Cord Clamp
M20	YWV5WA1601A2	Rear Panel
M21	YWV7DA0240A3	Heat Sink
M22	YWSR6W1	Cord Clamp
M28	YWV7QA3305A4	Main Label for WV-RC550/A
	YWV7QA3306A4	Main Label for WV-RC550/B
	YWV7QA3307A4	Main Label for WV-RC550/G

REF.NO.	PART NO.	DESCRIPTION
M29	YWV7MA0081A4	Safety Labelfor WV-RC550/G
M30	YWV7MA0015A4	Safety Labelfor WV-RC550/G
M31	YWV7MA0338A4	Safety Label
M32	YFV7MB0099A4	Screw Caution Label
M33	YWA7SA0689A4	Earth Label
M34	YWV7SA1976A4	LN Earth Label
M35	YFV7MA0209A4	Fuse Safety Label
M36	YWV7MA0222A4	Fuse Capacity Label
M37	YWV7MA0223A4	Fuse Capacity Label

REF.NO.	PART NO.	DESCRIPTION
FRONT SWITCH BOARD		
PCB1 (RTL)	YWVKBRC55P1A	Printed Circuit Board Assy
IC1-3	YWUPD4051BG	IC
IC4	NJM2902M	IC
IC5	MN18888CUL	LSI
IC6	NJM2902M	IC
IC7	NJM2903M	IC
IC8	MN13821M	IC
IC9	YWUPD4051BG	IC
IC10	YWUPD74HC14G	IC
IC11	YWUPD4050BG	IC
IC12	NJM2903M	IC
IC13	NJM4556M	IC
Q2,3	2SD601-RS	Transistor
Q4	2SB709-RS	Transistor
D3	LN31GPHL	LED
D4-7	MA153	Diode
D8	MA151K	Diode
R3	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R4	YF2116203JT	Carbon 20K ohms 1/10W
R5	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R6	YF2116203JT	Carbon 20K ohms 1/10W
R7	YF2116682JT	Carbon 6.8K ohms 1/10W
R10-17	YFR1220P392D	Metal 3.9K ohms
R18,19	YF2116153JT	Carbon 15K ohms 1/10W
R20	YF2116471JT	Carbon 470 ohms 1/10W
R21	YF2116273GT	Carbon 27K ohms 1/10W
R22,23	YF2116153JT	Carbon 15K ohms 1/10W
R24	YF2116471JT	Carbon 470 ohms 1/10W
R25,26	YF2116153JT	Carbon 15K ohms 1/10W
R27,28	YF2116471JT	Carbon 470 ohms 1/10W
R29	YF2116133GT	Carbon 13K ohms 1/10W
R30	YF2116203JT	Carbon 20K ohms 1/10W
R31	YF2116393GT	Carbon 39K ohms 1/16W
R32-35	YF2116473GT	Carbon 47K ohms 1/10W
R36	YWR1220P103D	Metal 10K ohms
R37	YWR1220P622D	Metal 6.2K ohms
R38	YWR1220P912D	Metal 9.2K ohms
R39	YWR1220P622D	Metal 6.2K ohms
R40	YWR1220P752D	Metal 7.5K ohms
R41	YWR1220P512D	Metal 5.1K ohms
R42	R1220P822D	Metal 8.2K ohms
R43	YWR1220P182D	Metal 1.8K ohms
R44	YWR1220P103D	Metal 10K ohms
R45-48	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R49	YF2116151JT	Carbon 150 ohms 1/10W
R50,51	YF2116152JT	Carbon 1.5K ohms 1/10W
R52	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R53	YF2116203JT	Carbon 20K ohms 1/10W
R54-65	YF2116152JT	Carbon 1.5K ohms 1/10W
R66,67	YF2116153JT	Carbon 15K ohms 1/10W
R68	YF2116471JT	Carbon 470 ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION
R69,70	YF2116153JT	Carbon 15K ohms 1/10W
R71	YF2116471JT	Carbon 470 ohms 1/10W
R75	YF2116272JT	Carbon 2.7K ohms 1/10W
R76	YF2116473GT	Carbon 47K ohms 1/10W
R77	YF2116153JT	Carbon 15K ohms 1/10W
R78-85	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R86	YF2116473GT	Carbon 47K ohms 1/10W
R87-92	YF2116273GT	Carbon 27K ohms 1/10W
R93-96	YF2116473GT	Carbon 47K ohms 1/10W
R98-100	YF2116473GT	Carbon 47K ohms 1/10W
R101-111	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R112	YFR1220P104D	Metal 100K ohms
R113	YWR1220P473D	Metal 47K ohms
R114	YWR1220P302D	Metal 3K ohms
R115	YFR1220P104D	Metal 100K ohms
R116	YWR1220P473D	Metal 47K ohms
R117	YWR1220P302D	Metal 3K ohms
R118,119	YFR1220P104D	Metal 100K ohms
R120	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R121	YF2116273GT	Carbon 27K ohms 1/10W
R122	YF2116104JT	Carbon 100K ohms 1/10W
R123-127	YF2116473GT	Carbon 47K ohms 1/10W
R128	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R129	YWR1220P103D	Metal 10K ohms
R130	YWR1220P303D	Metal 30K ohms
R131	YWR1220P103D	Metal 10K ohms
R132-139	YF2116104JT	Carbon 100K ohms 1/10W
R140,141	YF2116221JT	Carbon 220 ohms 1/10W
R142-144	YF2116101JT	Carbon 100 ohms 1/10W
R145	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R146	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R147,148	YWR1220P202D	Metal 2K ohms
R149	YF2116101JT	Carbon 100 ohms 1/10W
R150	YF2116273GT	Carbon 27K ohms 1/10W
R151	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R152-155	YF2116101JT	Carbon 100 ohms 1/10W
R160,161	YF2116471JT	Carbon 470 ohms 1/10W
R162	YF2116682JT	Carbon 6.8K ohms 1/10W
R165	YF2116510JT	Carbon 51 ohms 1/10W
VR1-5	YWK09K11320K	Variable Resistor 20K ohms
VR6,7	YWRK9K11320K	Variable Resistor 20K ohms
VR9	YWK09K1131K	Variable Resistor 1K ohms
VR10,11	YWRK9K1135K	Variable Resistor 5K ohms
Z1	YWRKM10L503F	Block Resistor
C2-9	YF400104FZT	Ceramic 0.1 µF
C10-13	YF400224FZT	Ceramic 0.22 µF
C14-16	YF400104FZT	Ceramic 0.1 µF
C17	ECEV1CV470	Electrolytic 47 µF 16V
C18	YF400224FZT	Ceramic 0.22 µF
C19	YF400104FZT	Ceramic 0.1 µF
C20-25	YF400224FZT	Ceramic 0.22 µF
C26-28	YF400104FZT	Ceramic 0.1 µF
C29	YF400101CHJT	Ceramic 100 pF
C30	YF400104FZT	Ceramic 0.1 µF
C31	YF400101CHJT	Ceramic 100 pF

REF.NO.	PART NO.	DESCRIPTION
C32	ECEV1CV470	Electrolytic 47 µF 16V
C33	YF400104FZT	Ceramic 0.1 µF
C34	YF400101CHJT	Ceramic 100 pF
C35	YF400104FZT	Ceramic 0.1 µF
C36	ECEV0JV470S	Electrolytic 47 µF 6.3V
C37-39	YF400151CHJT	Ceramic 150 pF
C40	ECEV1CV470	Electrolytic 47 µF 16V
C41	YF400330CHJT	Ceramic 33 pF
C42	YF400224FZT	Ceramic 0.22 µF
C43	YF400101CHJT	Ceramic 100 pF
C44	ECEV0JV470S	Electrolytic 47 µF 6.3V
C45	ECEV1CV470	Electrolytic 47 µF 16V
C46	YF400101CHJT	Ceramic 100 pF
C47,48	ECEV0JV470S	Electrolytic 47 µF 6.3V
C49	YF400104FZT	Ceramic 0.1 µF
C50	ECEV0JV470S	Electrolytic 47 µF 6.3V
C51,52	YF400101CHJT	Ceramic 100 pF
C53-55	YF400104FZT	Ceramic 0.1 µF
C56	ECEV0JV101	Electrolytic 100 µF 6.3V
C57	ECEV1CA101	Electrolytic 100 µF 16V
C58	ECEV1AN330	Electrolytic 33 µF 10V
C59	ECEV0JN470S	Electrolytic 47 µF 6.3V
C60-62	ECEV0JV470S	Electrolytic 47 µF 6.3V
L1,2	YWNL32100J	Coil 10 µH
L3	YWNL321R0J	Coil 1 µH
SW1,2	YWSSSF023P9N	Slide Switch
SW3	YWSSSF022P9N	Slide Switch
SW4	YWSSSF023P9N	Slide Switch
SW5	YWSS1016SPLA	Rotary Switch
SW6	YWS2150	Rotary Switch
SW7	YWSSSF022P9N	Slide Switch
SW8	YWSSSF023P9N	Slide Switch
SW9	YWSKQBAD	Push Switch
SW10-12	YWSKQBAC	Push Switch
SW13	YWS2150	Rotary Switch
SW14	YWSSSF023P9N	Slide Switch
SW15	YWMBP312G	Toggle Switch
SW16	YWS2150	Rotary Switc
X1	YWCSTCS8MT	Oscillator
BI1	YWVRCU550L04	Internal Wire Assy for CN1 and Video Board CN5
BI2	YWVRCU550L06	Internal Wire Assy for CN2 and Video Board CN7
BI3	YWVRCU550L18	Internal Wire Assy for CN3 and Iris VR Board CN1
BI4	YWVRCU550L17	Internal Wire Assy for CN4 and LED Board CN1
M7	YWA2NG0257A4	Spacer

REF.NO.	PART NO.	DESCRIPTION
REAR CONNECTOR BOARD		
PCB2 (RTL)	YWVKCRC55P1A	Printed Circuit Board Assy
IC1	YWUPC4064G2	IC
IC2	NJM2901M	IC
IC3	YWUPD4066BG	IC
IC4	NJM2903M	IC
IC5	NJM4556MB	IC
IC6,7	YWTC4S66FR	IC
IC8	NJM386M	IC
IC9	NJM2904M	IC
Q2-7	2SD601-RS	Transistor
D1-6	MA151K	Diode
D10	MA151K	Diode
R1	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R2	YF2116822JT	Carbon 8.2K ohms 1/10W
R3,4	ERJ6GEYJ223	Carbon 22K ohms 1/10W
R5	YF2116104JT	Carbon 100K ohms 1/10W
R6	YF2116203JT	Carbon 20K ohms 1/10W
R7	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R8,9	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R10	YF2116273GT	Carbon 27K ohms 1/10W
R11	YF2116104JT	Carbon 100K ohms 1/10W
R12,13	YF2116473GT	Carbon 47K ohms 1/10W
R14	YF2116104JT	Carbon 100K ohms 1/10W
R15,16	YF2116473GT	Carbon 47K ohms 1/10W
R17-19	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R20	YF2116822JT	Carbon 8.2K ohms 1/10W
R21,22	ERJ6GEYJ223	Carbon 22K ohms 1/10W
R23	YF2116104JT	Carbon 100K ohms 1/10W
R24	YF2116203JT	Carbon 20K ohms 1/10W
R25	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R26,27	YF2116104JT	Carbon 100K ohms 1/10W
R28-31	YF2116473GT	Carbon 47K ohms 1/10W
R32,33	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R34	YF2116273GT	Carbon 27K ohms 1/10W
R35	YF2116104JT	Carbon 100K ohms 1/10W
R36	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R37	YF2116104JT	Carbon 100K ohms 1/10W
R38	YF2116912GT	Carbon 9.1K ohms 1/10W
R39,40	YF2116473GT	Carbon 47K ohms 1/10W
R41,42	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R43,44	ERJ6GEYJ223	Carbon 22K ohms 1/10W
R45	YF2116104JT	Carbon 100K ohms 1/10W
R46,47	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R48,49	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R50,51	ERJ6GEYJ223	Carbon 22K ohms 1/10W
R53	YF2116104JT	Carbon 100K ohms 1/10W
R54,55	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R71,72	YF2116222GT	Carbon 2.2K ohms 1/10W
R73,74	YF2116151JT	Carbon 150 ohms 1/10W
R75	YF2116332JT	Carbon 3.3K ohms 1/10W
R76	ERJ6GEYJ103	Carbon 10K ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION
R77	ERJ6GEYJ223	Carbon 22K ohms 1/10W
R78,79	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R100	ERDS2TJ300	Carbon 30 ohms 1/4W
R101	YF2116331JT	Carbon 330 ohms 1/10W
R102	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R103	ERJ6GEYJ562	Carbon 5.6K ohms 1/10W
R104	YF2116331JT	Carbon 330 ohms 1/10W
R105	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R106	YF2116821GT	Carbon 820 ohms 1/10W
R107	YF2116331JT	Carbon 330 ohms 1/10W
R108	YF2116333GT	Carbon 33K ohms 1/10W
R109	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R110	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R111	ERG1SJ271	Metal 270 ohms 1W
R112	ERJ6GEYJ393	Carbon 39K ohms 1/10W
R113	YF2116333GT	Carbon 33K ohms 1/10W
R114	YF2116332JT	Carbon 3.3K ohms 1/10W
R115-117	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R118,119	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R120	ERDS2FJ101	Carbon 100 ohms 1/4W
R121	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R122	YF2116101JT	Carbon 100 ohms 1/10W
R123	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R124	YF2116104JT	Carbon 100K ohms 1/10W
R125	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R126	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R127	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R128	YF2116824JT	Carbon 820K ohms 1/10W
R129	YF2116513JT	Carbon 51K ohms 1/10W
R130,131	YF2116750JT	Carbon 75 ohms 1/10W
R132	ERJ6GEYJ103	Carbon 10K ohms 1/10W
C1-3	ECEV1CV470	Electrolytic 47 µF 16V
C4	YF400104FZT	Ceramic 0.1 µF
C5	ECEV1CV220	Electrolytic 22 µF 16V
C6	ECEV1CV470	Electrolytic 47 µF 16V
C7	YF400104FZT	Ceramic 0.1 µF
C14	ECEV1CV470	Electrolytic 47 µF 16V
C20,21	ECEV1CA101	Electrolytic 100 µF 16V
C22,23	ECEV1CN100	Electrolytic 10 µF 16V
C24	ECEV1CV220	Electrolytic 22 µF 16V
C25	YF400102XKT	Ceramic 1000 pF
C26	ECEV1CA101	Electrolytic 100 µF 16V
C27-30	ECEV1CN100	Electrolytic 10 µF 16V
C31	ECEV0JN470S	Electrolytic 470 µF 6.3V
C32	ECEV1CV470	Electrolytic 47 µF 16V
C33	YF400472XKT	Ceramic 4700 pF
C34,35	ECEB1CGE471	Electrolytic 470 µF 16V
C36	YF400103XKT	Ceramic 0.01 µF
C37	ECEV1CV470	Electrolytic 47 µF 16V
C38	YF400104FZT	Ceramic 0.1 µF
C39	ECEV1CA101	Electrolytic 100 µF 16V
C40,41	ECEV1CV470	Electrolytic 47 µF 16V
T1	YWMG15	High Freq Transformer
SW1	YWSSSS21211	Slide Switch
CN1,2	YWP2196	BNC Connector

REF.NO.	PART NO.	DESCRIPTION
CN3	YWM1824	4-pin Connector
CN4	YWT6025E	RCA Pin Jack
CN11	YW53014-0210	2-pin Connector
BI5	YWVRCU550L08	Internal Wire Assy for CN5 and Video Board CN9
BI6	YWVRCU550L15	Internal Wire Assy for CN6 and Video Board CN2
BI7	YWVRCU550L14	Internal Wire Assy for CN7 and Video Board CN15
BI8	YWVRCU550L07	Internal Wire Assy for CN8 and Video Board CN8
BI9	YWVRCU550L09	Internal Wire Assy for CN9 and Video Board CN10
BI10	YWVRCU550L10	Internal Wire Assy for CN10 and Video Board CN11

IRIS VR BOARD

PCB3 (RTL)	YWVKDRC55P1A	Printed Circuit Board Assy
R1,2	YF2116152JT	Carbon 1.5K ohms 1/10W
VR1	YWRK9L11420K	Variable Resistor 20K ohms
C1	YF400224FZT	Ceramic 0.22 µF
CN1	YW530140410	4-pin Connector

LED BOARD

PCB4 (RTL)	YWVKERC55P1A	Printed Circuit Board Assy
Q1	2SD601-RS	Transistor
D1	LN21RPHL	LED
D2	LN31GPHL	LED
R1	YF2116153JT	Carbon 15K ohms 1/10W
R2	YF2116473GT	Carbon 47K ohms 1/10W
R3	YF2116272JT	Carbon 2.7K ohms 1/10W
R4	ERJ6GEYJ102	Carbon 1K ohms 1/10W
C1	ECEV1CV470	Electrolytic 47 µF 16V
CN1	YW530140510	5-pin Connector
M7	YWA2NG0257A4	Spacer

REF.NO.	PART NO.	DESCRIPTION
D SUB CONNECTOR BOARD		
PCB5 (RTL)	YWVKFRC55P1A	Printed Circuit Board Assy
CN1	YWRDAD15SLNA	15-pin Connector
CN2	YW530151510	15-pin Connector
STR BOARD		
PCB6 (RTL)	YWVKGRC55P1A	Printed Circuit Board Assy
IC1	YWSTR7002	IC
C1	ECQM1H104JZ	Plastic 0.1 μF 50V
BI11	YWVRCU550L02	Internal Wire Assy for CN1 and Video Board CN3
26-PIN CONNECTOR BOARD		
PCB7 (RTL)	YWVKYRC55P1A	Printed Circuit Board Assy
CN1	SRB2A2126STH	26-pin Connector
BI12	YWVRCU550L11	Internal Wire Assy for E1 and Video Board CN12
BI13	YWVRCU550L12	Internal Wire Assy for E2 and Video Board CN13
BI14	YWVRCU550L16	Internal Wire Assy for E3 and Video Board CN11
M23	YWV6GA0189A4	Connector Mounting Plate
M24	YWV2PA0470A4	Insulator Washer

REF.NO.	PART NO.	DESCRIPTION
VIDEO BOARD		
PCB8 (RTL)	YWVKZRC55E1A	Printed Circuit Board Assy
IC1	YWSI8022	IC
IC2	NJM723M	IC
IC3	NJM2904M	IC
IC4	NJM79L05A	IC
IC5	YWTC4W53FL	IC
IC6	YWLM1881M	IC
IC7	YWUPD4528BG	IC
IC8	YWUPC4064G2	IC
IC9	YWUPC4062G2	IC
IC10,11	NJM1496M	IC
IC12,201	YWUPC4062G2	IC
IC202,203	NJM1496M	IC
IC204,401	YWUPC4062G2	IC
IC402,403	NJM1496M	IC
IC404	YWUPC4062G2	IC
IC501	NJM2903M	IC
IC601	YWLM1881M	IC
IC602	YWUPD4001BG	IC
IC603	YWTC4W53FL	IC
IC701	YWUPD4001BG	IC
Q3	2SB793A-RS	Transistor
Q4	2SD973A-RS	Transistor
Q5,6	2SB793A-RS	Transistor
Q7	2SD601-RS	Transistor
Q8-10	2SC2404-CD	Transistor
Q11	2SD601-RS	Transistor
Q12	2SB709-RS	Transistor
Q13-18	2SD601-RS	Transistor
Q19	2SC2404-CD	Transistor
Q20,21	2SD601-RS	Transistor
Q22	2SC2404-CD	Transistor
Q23	2SC2405-RS	Transistor
Q24	2SD601-RS	Transistor
Q25	2SK198-P	Transistor
Q26	2SB709-RS	Transistor
Q27,28	2SD601-RS	Transistor
Q29	2SB709-RS	Transistor
Q30	2SD601-RS	Transistor
Q31-33	2SC2404-CD	Transistor
Q34	XN4601	Transistor
Q35	2SD602-Q	Transistor
Q36	2SB710-QRS	Transistor
Q37-39	2SC2404-CD	Transistor
Q40	XN4601	Transistor
Q41	2SD602-Q	Transistor
Q42	2SB710-QRS	Transistor
Q201	2SD601-RS	Transistor
Q202	2SC2404-CD	Transistor
Q203-208	2SD601-RS	Transistor

REF.NO.	PART NO.	DESCRIPTION
Q209	2SC2404-CD	Transistor
Q210	2SC2405-RS	Transistor
Q211	2SD601-RS	Transistor
Q212	2SK198-P	Transistor
Q213	2SB709-RS	Transistor
Q214,215	2SD601-RS	Transistor
Q216	2SB709-RS	Transistor
Q217	2SD601-RS	Transistor
Q218-220	2SC2404-CD	Transistor
Q221	XN4601	Transistor
Q222	2SD602-Q	Transistor
Q223	2SB710-QRS	Transistor
Q401	2SD601-RS	Transistor
Q402	2SC2404-CD	Transistor
Q403-408	2SD601-RS	Transistor
Q409	2SC2404-CD	Transistor
Q410	2SC2405-RS	Transistor
Q411	2SD601-RS	Transistor
Q412	2SK198-P	Transistor
Q413	2SB709-RS	Transistor
Q414,415	2SD601-RS	Transistor
Q416	2SB709-RS	Transistor
Q417	2SD601-RS	Transistor
Q418-420	2SC2404-CD	Transistor
Q421	XN4601	Transistor
Q422	2SD602-Q	Transistor
Q423	2SB710-QRS	Transistor
Q424,501	2SD601-RS	Transistor
Q502	2SK198-P	Transistor
Q503,504	2SD601-RS	Transistor
Q505-507	2SC2404-CD	Transistor
Q508	XN4601	Transistor
Q509	2SD602-Q	Transistor
Q510	2SB710-QRS	Transistor
Q601	2SD601-RS	Transistor
Q602	2SB709-RS	Transistor
Q603-606	2SD601-RS	Transistor
Q607	2SK198-P	Transistor
Q608,609	2SD601-RS	Transistor
Q610-612	2SC2404-CD	Transistor
Q613	XN4601	Transistor
Q614	2SD602-Q	Transistor
Q615	2SB710-QRS	Transistor
Q701-706	2SD601-RS	Transistor
D2	MA1160	Diode
D3-7	MA151K	Diode
D8 ⚠	S1VB20	Diode
D9,10	MA151K	Diode
D11,12	MA153	Diode
D201	MA151K	Diode
D202	MA153	Diode
D401	MA151K	Diode
D402,501	MA153	Diode
D601	MA153	Diode
R1,2	ERX1SJR22	Carbon 0.22 ohms 1W

REF.NO.	PART NO.	DESCRIPTION
R3	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R5,6	YF2116332JT	Carbon 3.3K ohms 1/10W
R7	ERDS2FJ331	Carbon 330 ohms 1/4W
R8	YF2116682JT	Carbon 6.8K ohms 1/10W
R9	ERDS2TJ151	Carbon 150 ohms 1/4W
R10	YF2116272JT	Carbon 2.7K ohms 1/10W
R11	YF2116222GT	Carbon 2.2K ohms 1/10W
R12	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R13,14	YF2116332JT	Carbon 3.3K ohms 1/10W
R15	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R16	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R17,18	YWR1220P103D	Metal 10K ohms
R19	YWR1220P912D	Metal 9.1K ohms
R20	YWR1220P301D	Metal 300 ohms
R21	YFR1220P203D	Metal 20K ohms
R22,23	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R24	YFR1220P203D	Metal 20K ohms
R25	YWR1220P103D	Metal 10K ohms
R26	YWR1220P163D	Metal 16K ohms
R27	YWR1220P102D	Metal 1K ohms
R28	YWR1220P223D	Metal 22K ohms
R29,30	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R31	YF2116750JT	Carbon 75 ohms 1/10W
R32,33	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R34	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R35	ERJ6GEYJ223	Carbon 22K ohms 1/10W
R36	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R37	YF2116101JT	Carbon 100 ohms 1/10W
R38	ERJ6GEYJ102	Carbon 1K ohms 1/10W
R39	YF2116752JT	Carbon 7.5K ohms 1/10W
R40	YF2116113JT	Carbon 11K ohms 1/10W
R41	YF2116362JT	Carbon 3.6K ohms 1/10W
R42	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R43	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R44	YF2116152JT	Carbon 1.5K ohms 1/10W
R45	YF2116221JT	Carbon 220 ohms 1/10W
R46	YF2116272JT	Carbon 2.7K ohms 1/10W
R47	YF2116183GT	Carbon 18K ohms 1/10W
R48	YF2116153JT	Carbon 15K ohms 1/10W
R49	YF2116122JT	Carbon 1.2K ohms 1/10W
R51	YF2116224JT	Carbon 220K ohms 1/10W
R52	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R53	YF2116101JT	Carbon 100 ohms 1/10W
R54	YF2116682JT	Carbon 6.8K ohms 1/10W
R55	YF2116152JT	Carbon 1.5K ohms 1/10W
R56	YF2116114JT	Carbon 110K ohms 1/10W
R57	YF2116682JT	Carbon 6.8K ohms 1/10W
R58	YF2116332JT	Carbon 3.3K ohms 1/10W
R59	YF2116822JT	Carbon 8.2K ohms 1/10W
R60	YF2116204JT	Carbon 200K ohms 1/10W
R61	YF2116564JT	Carbon 560K ohms 1/10W
R62	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R63	YF2116153JT	Carbon 15K ohms 1/10W
R64	YF2116563JT	Carbon 56K ohms 1/10W
R65	YF2116332JT	Carbon 3.3K ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R66,67	ERJ6GEYJ102	Carbon	1K ohms 1/10W	R125	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R68	YF2116332JT	Carbon	3.3K ohms 1/10W	R126	YF2116821GT	Carbon	820 ohms 1/10W
R69	YF2116272JT	Carbon	2.7K ohms 1/10W	R127	R1220P681D	Metal	680 ohms
R70	YF2116122JT	Carbon	1.2K ohms 1/10W	R128	YF2116751JT	Carbon	750 ohms 1/10W
R71	ERJ6GEY0R00	Carbon	0 ohms 1/10W	R129	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R74	ERJ6GEYJ103	Carbon	10K ohms 1/10W	R130	YF2116183GT	Carbon	18K ohms 1/10W
R75	YWR1220P152D	Metal	1.5K ohms	R131	YF2116752JT	Carbon	7.5K ohms 1/10W
R76	YWR1220P201D	Metal	200 ohms	R132	YF2116682JT	Carbon	6.8K ohms 1/10W
R77	ERJ6GEYJ103	Carbon	10K ohms 1/10W	R133	YF2116681JT	Carbon	680 ohms 1/10W
R78	YWR1220P102D	Metal	1K ohms	R134	YF2116221JT	Carbon	220 ohms 1/10W
R79	YWR1220P910D	Metal	91 ohms	R135	YF2116272JT	Carbon	2.7K ohms 1/10W
R80	ERJ6GEYJ103	Carbon	10K ohms 1/10W	R136	YF2116681JT	Carbon	680 ohms 1/10W
R81	R1220P621D	Metal	620 ohms	R137	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R82	YWR1220P202D	Metal	2K ohms	R138	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R83	YF2116122JT	Carbon	1.2K ohms 1/10W	R139	YF2116332JT	Carbon	3.3K ohms 1/10W
R84	YWR1220P562D	Metal	5.6K ohms	R140	YF2116202JT	Carbon	2K ohms 1/10W
R85	YFR1220P392D	Metal	3.9K ohms	R141	YF2116132JT	Carbon	1.3K ohms 1/10W
R86	YF2116561JT	Carbon	560 ohms 1/10W	R142	YF2116222GT	Carbon	2.2K ohms 1/10W
R87	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W	R143-146	YF2116100JT	Carbon	10 ohms 1/10W
R88	YF2116471JT	Carbon	470 ohms 1/10W	R147	YF2116681JT	Carbon	680 ohms 1/10W
R89	YF2116681JT	Carbon	680 ohms 1/10W	R148	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R90	YF2116821GT	Carbon	820 ohms 1/10W	R149	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R91	YF2116201JT	Carbon	200 ohms 1/10W	R150	YF2116332JT	Carbon	3.3K ohms 1/10W
R92	YF2116821GT	Carbon	820 ohms 1/10W	R151	YF2116202JT	Carbon	2K ohms 1/10W
R93	YF2116241JT	Carbon	240 ohms 1/10W	R152	YF2116132JT	Carbon	1.3K ohms 1/10W
R94,95	YF2116822JT	Carbon	8.2K ohms 1/10W	R153	YF2116222GT	Carbon	2.2K ohms 1/10W
R96	YF2116303GT	Carbon	30K ohms 1/10W	R154-157	YF2116100JT	Carbon	10 ohms 1/10W
R97	YF2116333GT	Carbon	33K ohms 1/10W	R158,159	YF2116750JT	Carbon	75 ohms 1/10W
R98	YF2116153JT	Carbon	15K ohms 1/10W	R201	YF2116750JT	Carbon	75 ohms 1/10W
R99	ERJ6GEYJ102	Carbon	1K ohms 1/10W	R202	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R100	YWR1220P202D	Metal	2K ohms	R203	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R101	YWR1220P362D	Metal	3.6K ohms	R204	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R102	YW2116182JT	Carbon	1.8K ohms 1/10W	R205	YF2116752JT	Carbon	7.5K ohms 1/10W
R103	ERJ6GEYJ102	Carbon	1K ohms 1/10W	R206	YF2116113JT	Carbon	11K ohms 1/10W
R104	YF2116153JT	Carbon	15K ohms 1/10W	R207	YF2116362JT	Carbon	3.6K ohms 1/10W
R105	ERJ6GEY0R00	Carbon	0 ohms 1/10W	R208	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R106	YF2116333GT	Carbon	33K ohms 1/10W	R209	YF2116152JT	Carbon	1.5K ohms 1/10W
R107	YF2116222GT	Carbon	2.2K ohms 1/10W	R210	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R108	YF2116561JT	Carbon	560 ohms 1/10W	R211	YF2116221JT	Carbon	220 ohms 1/10W
R109	YF2116132JT	Carbon	1.3K ohms 1/10W	R212	YF2116272JT	Carbon	2.7K ohms 1/10W
R110	YF2116561JT	Carbon	560 ohms 1/10W	R213	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R111	YF2116331JT	Carbon	330 ohms 1/10W	R214	YWR1220P201D	Metal	200 ohms
R112	YF2116271JT	Carbon	270 ohms 1/10W	R215	YF2116101JT	Carbon	100 ohms 1/10W
R113	YF2116331JT	Carbon	330 ohms 1/10W	R216	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R114	YF2116271JT	Carbon	270 ohms 1/10W	R217	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R115	YF2116101JT	Carbon	100 ohms 1/10W	R218	YWR1220P102D	Metal	1K ohms
R116	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W	R219	YWR1220P910D	Metal	91 ohms
R117	YWR1220P472D	Metal	4.7K ohms	R220	YWR1220P152D	Metal	1.5K ohms
R118	YWR1220P562D	Metal	5.6K ohms	R222	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R119	YF2116272JT	Carbon	2.7K ohms 1/10W	R223	R1220P621D	Metal	620 ohms
R120	YF2116222GT	Carbon	2.2K ohms 1/10W	R224	YWR1220P202D	Metal	2K ohms
R121	YF2116272JT	Carbon	2.7K ohms 1/10W	R228	YF2116183GT	Carbon	18K ohms 1/10W
R122	ERJ6GEYJ223	Carbon	22K ohms 1/10W	R229	YF2116153JT	Carbon	15K ohms 1/10W
R123	YF2116183GT	Carbon	18K ohms 1/10W	R230	YF2116122JT	Carbon	1.2K ohms 1/10W
R124	ERJ6GEYJ103	Carbon	10K ohms 1/10W	R231	YWR1220P562D	Metal	5.6K ohms

REF.NO.	PART NO.	DESCRIPTION	
R232	YFR1220P392D	Metal	3.9K ohms
R233	YF2116561JT	Carbon	560 ohms 1/10W
R234	YF2116471JT	Carbon	470 ohms 1/10W
R235	YF2116681JT	Carbon	680 ohms 1/10W
R236,237	YF2116821GT	Carbon	820 ohms 1/10W
R238	YF2116201JT	Carbon	200 ohms 1/10W
R239	YF2116241JT	Carbon	240 ohms 1/10W
R240,241	YF2116822JT	Carbon	8.2K ohms 1/10W
R242	YF2116303GT	Carbon	30K ohms 1/10W
R243	YF2116333GT	Carbon	33K ohms 1/10W
R244	YF2116153JT	Carbon	15K ohms 1/10W
R245	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R246	YWR1220P362D	Metal	3.6K ohms
R247	YWR1220P202D	Metal	2K ohms
R248	YW2116182JT	Carbon	1.8K ohms 1/10W
R249	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R250	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R251	YF2116333GT	Carbon	33K ohms 1/10W
R252	YF2116153JT	Carbon	15K ohms 1/10W
R253	YF2116222GT	Carbon	2.2K ohms 1/10W
R254	YF2116561JT	Carbon	560 ohms 1/10W
R255	YF2116132JT	Carbon	1.3K ohms 1/10W
R256	YF2116561JT	Carbon	560 ohms 1/10W
R257,258	YF2116331JT	Carbon	330 ohms 1/10W
R259	YF2116101JT	Carbon	100 ohms 1/10W
R260,261	YF2116271JT	Carbon	270 ohms 1/10W
R262	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R263	YWR1220P472D	Metal	4.7K ohms
R264	YWR1220P562D	Metal	5.6K ohms
R265	YF2116222GT	Carbon	2.2K ohms 1/10W
R266	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R267	YF2116183GT	Carbon	18K ohms 1/10W
R268	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R269	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R270	YF2116821GT	Carbon	820 ohms 1/10W
R271	R1220P681D	Metal	680 ohms
R272	YF2116751JT	Carbon	750 ohms 1/10W
R273	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R274	YF2116183GT	Carbon	18K ohms 1/10W
R275	YF2116752JT	Carbon	7.5K ohms 1/10W
R276	YF2116682JT	Carbon	6.8K ohms 1/10W
R277	YF2116681JT	Carbon	680 ohms 1/10W
R278	YF2116221JT	Carbon	220 ohms 1/10W
R279	YF2116272JT	Carbon	2.7K ohms 1/10W
R280	YF2116751JT	Carbon	750 ohms 1/10W
R281	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R282	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R283	YF2116332JT	Carbon	3.3K ohms 1/10W
R284	YF2116202JT	Carbon	2K ohms 1/10W
R285	YF2116132JT	Carbon	1.3K ohms 1/10W
R286	YF2116222GT	Carbon	2.2K ohms 1/10W
R287-290	YF2116100JT	Carbon	10 ohms 1/10W
R291	YF2116750JT	Carbon	75 ohms 1/10W
R300	YWR1220P131D	Metal	130 ohms
R301	YWR1220P300D	Metal	30 ohms
R302	YWR1220Q270D	Metal	27 ohms
R303	YWR1220P131D	Metal	130 ohms
R304	YWR1220P300D	Metal	30 ohms
R305	YWR1220Q270D	Metal	27 ohms
R306	YWR1220P131D	Metal	130 ohms
R307	YWR1220P300D	Metal	30 ohms
R308	YWR1220Q270D	Metal	27 ohms
R401	YF2116750JT	Carbon	75 ohms 1/10W
R402	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R403	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R404	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R405	YF2116752JT	Carbon	7.5K ohms 1/10W
R406	YF2116113JT	Carbon	11K ohms 1/10W
R407	YF2116362JT	Carbon	3.6K ohms 1/10W
R408	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R409	YF2116152JT	Carbon	1.5K ohms 1/10W
R410	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R411	YF2116221JT	Carbon	220 ohms 1/10W
R412	YF2116272JT	Carbon	2.7K ohms 1/10W
R413	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R414	YWR1220P201D	Metal	200 ohms
R415	YF2116101JT	Carbon	100 ohms 1/10W
R416	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R417	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R418	YWR1220P102D	Metal	1K ohms
R419	YWR1220P910D	Metal	91 ohms
R420	YWR1220P152D	Metal	1.5K ohms
R422	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R423	R1220P621D	Metal	620 ohms
R424	YWR1220P202D	Metal	2K ohms
R426	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R428	YF2116183GT	Carbon	18K ohms 1/10W
R429	YF2116153JT	Carbon	15K ohms 1/10W
R430	YF2116122JT	Carbon	1.2K ohms 1/10W
R431	ERJ6GEYJ562	Carbon	5.6K ohms 1/10W
R432	YFR1220P392D	Metal	3.9K ohms
R433	YF2116561JT	Carbon	560 ohms 1/10W
R434	YF2116471JT	Carbon	470 ohms 1/10W
R435	YF2116681JT	Carbon	680 ohms 1/10W
R436,437	YF2116821GT	Carbon	820 ohms 1/10W
R438	YF2116201JT	Carbon	200 ohms 1/10W
R439	YF2116241JT	Carbon	240 ohms 1/10W
R440,441	YF2116822JT	Carbon	8.2K ohms 1/10W
R442	YF2116303GT	Carbon	30K ohms 1/10W
R443	YF2116333GT	Carbon	33K ohms 1/10W
R444	YF2116153JT	Carbon	15K ohms 1/10W
R445	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R446	YWR1220P362D	Metal	3.6K ohms
R447	YWR1220P202D	Metal	2K ohms
R448	YW2116182JT	Carbon	1.8K ohms 1/10W
R449	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R450	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R451	YF2116333GT	Carbon	33K ohms 1/10W
R452	YF2116153JT	Carbon	15K ohms 1/10W
R453	YF2116222GT	Carbon	2.2K ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION	
R454	YF2116561JT	Carbon	560 ohms 1/10W
R455	YF2116132JT	Carbon	1.3K ohms 1/10W
R456	YF2116561JT	Carbon	560 ohms 1/10W
R457,458	YF2116331JT	Carbon	330 ohms 1/10W
R459	YF2116101JT	Carbon	100 ohms 1/10W
R460,461	YF2116271JT	Carbon	270 ohms 1/10W
R462	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R463	YWR1220P472D	Metal	4.7K ohms
R464	YWR1220P562D	Metal	5.6K ohms
R465	YF2116222GT	Carbon	2.2K ohms 1/10W
R466	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R467	YF2116183GT	Carbon	18K ohms 1/10W
R468	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R469	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R470	YF2116821GT	Carbon	820 ohms 1/10W
R471	R1220P681D	Metal	680 ohms
R472	YF2116751JT	Carbon	750 ohms 1/10W
R473	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R474	YF2116183GT	Carbon	18K ohms 1/10W
R475	YF2116752JT	Carbon	7.5K ohms 1/10W
R476	YF2116682JT	Carbon	6.8K ohms 1/10W
R477	YF2116681JT	Carbon	680 ohms 1/10W
R478	YF2116221JT	Carbon	220 ohms 1/10W
R479	YF2116272JT	Carbon	2.7K ohms 1/10W
R480	YF2116681JT	Carbon	680 ohms 1/10W
R481	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R482	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R483	YF2116332JT	Carbon	3.3K ohms 1/10W
R484	YF2116202JT	Carbon	2K ohms 1/10W
R485	YF2116132JT	Carbon	1.3K ohms 1/10W
R486	YF2116222GT	Carbon	2.2K ohms 1/10W
R487-490	YF2116100JT	Carbon	10 ohms 1/10W
R491	YF2116750JT	Carbon	75 ohms 1/10W
R501	YF2116273GT	Carbon	27K ohms 1/10W
R502	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R503	YW2116182JT	Carbon	1.8K ohms 1/10W
R504	YF2116222GT	Carbon	2.2K ohms 1/10W
R505	YF2116183GT	Carbon	18K ohms 1/10W
R506	YF2116104JT	Carbon	100K ohms 1/10W
R507	YF2116432JT	Carbon	4.3K ohms 1/10W
R508	YW2116182JT	Carbon	1.8K ohms 1/10W
R509	YF2116273GT	Carbon	27K ohms 1/10W
R510	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R511	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R512	YF2116272JT	Carbon	2.7K ohms 1/10W
R513	YWR1220P183D	Metal	18K ohms
R514	YWR1220P243D	Metal	24K ohms
R515	YF2116333GT	Carbon	33K ohms 1/10W
R516	YF2116681JT	Carbon	680 ohms 1/10W
R517	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R518	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R519	YF2116332JT	Carbon	3.3K ohms 1/10W
R520	YF2116202JT	Carbon	2K ohms 1/10W
R521	YF2116132JT	Carbon	1.3K ohms 1/10W
R522	YF2116222GT	Carbon	2.2K ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION	
R523-526	YF2116100JT	Carbon	10 ohms 1/10W
R527	YF2116750JT	Carbon	75 ohms 1/10W
R601	YF2116273GT	Carbon	27K ohms 1/10W
R602	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R603	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R604	ERJ6GEYJ562	Carbon	5.6K ohms 1/10W
R605	YF2116564JT	Carbon	560K ohms 1/10W
R606	YF2116272JT	Carbon	2.7K ohms 1/10W
R607	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R608	YF2116272JT	Carbon	2.7K ohms 1/10W
R609	YF2116682JT	Carbon	6.8K ohms 1/10W
R610	YF2116222GT	Carbon	2.2K ohms 1/10W
R611	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R612	YF2116222GT	Carbon	2.2K ohms 1/10W
R613	YF2116821GT	Carbon	820 ohms 1/10W
R614	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R615	YF2116152JT	Carbon	1.5K ohms 1/10W
R616	YF2116512JT	Carbon	5.1K ohms 1/10W
R617	YF2116272JT	Carbon	2.7K ohms 1/10W
R618	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R619	YF2116104JT	Carbon	100K ohms 1/10W
R620	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R621	YF2116152JT	Carbon	1.5K ohms 1/10W
R622	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R623	YF2116273GT	Carbon	27K ohms 1/10W
R624	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R625	YF2116272JT	Carbon	2.7K ohms 1/10W
R626	YF2116681JT	Carbon	680 ohms 1/10W
R627	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R628	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R629	YF2116332JT	Carbon	3.3K ohms 1/10W
R630	YF2116202JT	Carbon	2K ohms 1/10W
R631	YF2116132JT	Carbon	1.3K ohms 1/10W
R632	YF2116222GT	Carbon	2.2K ohms 1/10W
R633-636	YF2116100JT	Carbon	10 ohms 1/10W
R637	YF2116750JT	Carbon	75 ohms 1/10W
R638	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R701	YF2116104JT	Carbon	100K ohms 1/10W
R702	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R703	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R704	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R705	YF2116101JT	Carbon	100 ohms 1/10W
R706	YF2116104JT	Carbon	100K ohms 1/10W
R707	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R708	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R709	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R710	YF2116101JT	Carbon	100 ohms 1/10W
R711	YF2116104JT	Carbon	100K ohms 1/10W
R712	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R713	ERJ6GEYJ102	Carbon	1K ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION
R714	ERJ6GEYJ103	Carbon 10K ohms 1/10W
R715	YF2116101JT	Carbon 100 ohms 1/10W
VR2	EVNDXAA03B13	Variable Resistor 1K ohms
VR3	EVNDXAA03B53	Variable Resistor 5K ohms
VR4	EVNDXAA03B52	Variable Resistor 500 ohms
VR201	EVNDXAA03B53	Variable Resistor 5K ohms
VR202	EVNDXAA03B52	Variable Resistor 500 ohms
VR401	EVNDXAA03B53	Variable Resistor 5K ohms
VR402	EVNDXAA03B52	Variable Resistor 500 ohms
VR501	EVNDXAA03B23	Variable Resistor 2K ohms
VR601	EVNDXAA03B52	Variable Resistor 500 ohms
VR602	EVNDXAA03B14	Variable Resistor 10K ohms
C1-3	ECKD2H103KB	Ceramic 0.01 µF
C4,5	EC0S1HA103DB	Electrolytic 0.01 µF 50V
C6,8	ECQM1H104JZ	Plastic 0.1 µF 50V
C10	YF400561CHJT	Ceramic 560 pF
C11	YF400104FZT	Ceramic 0.1 µF
C12	YF400331CHJT	Ceramic 330 pF
C13	YWRJ350T100M	Electrolytic 10 µF 50V
C14,15	YWRJ325V472M	Electrolytic 4700 µF 25V
C16	YWRJ325T330M	Electrolytic 33 µF 25V
C17	YF400102XKT	Ceramic 1000 pF
C18	YWRJ325T100M	Electrolytic 10 µF 25V
C19	YWRJ316V222M	Electrolytic 2200 µF 16V
C20	ECQM1H104JZ	Plastic 0.1 µF 50V
C21	YWRJ316T100M	Electrolytic 10 µF 16V
C22	YWRJ316T101M	Electrolytic 100 µF 16V
C23	ECQM1H104JZ	Plastic 0.1 µF 50V
C24	YWRJ316T100M	Electrolytic 10 µF 16V
C25	YWRJ310T101M	Electrolytic 100 µF 10V
C26	ECQM1H104JZ	Plastic 0.1 µF 50V
C27-29	ECKD2H103KB	Ceramic 0.1 µF 500V
C30	YWRJ316V102M	Electrolytic 100 µF 16V
C31	ECQM1H104JZ	Plastic 0.1 µF 50V
C32	YWRJ36T101M	Electrolytic 100 µF 6.3V
C33	ECQM1H104JZ	Plastic 0.1 µF 50V
C34,35	YWRJ310T101M	Electrolytic 100 µF 10V
C36	YF400220CHJT	Ceramic 22 pF
C37	YWRJ316T470M	Electrolytic 47 µF 16V
C38	YWRJP10V220M	Electrolytic 22 µF 10V
C39	YWRJ316T101M	Electrolytic 100 µF 16V
C40	YWRJ310T101M	Electrolytic 100 µF 10V
C41	YWRJ350TR22M	Electrolytic 0.22 µF 50V
C42	YF400102XKT	Ceramic 1000 pF
C43	YWRJ325T220M	Electrolytic 22 µF 25V
C44	YF400104FZT	Ceramic 0.1 µF
C45,46	YF400224FZT	Ceramic 0.22 µF
C47	YF400100CHJT	Ceramic 10 pF
C48	YF400104FZT	Ceramic 0.1 µF
C49	YF400104FZT	Ceramic 0.1 µF
C50	YF400104FZT	Ceramic 0.1 µF
C51	YF400102XKT	Ceramic 1000 pF
C52	YF400101CHJT	Ceramic 100 pF
C53	YF400104FZT	Ceramic 0.1 µF
C54	YF400680CHJT	Ceramic 68 pF

REF.NO.	PART NO.	DESCRIPTION
C55	YWRJ316T470M	Electrolytic 47 µF 16V
C56	YF400104FZT	Ceramic 0.1 µF
C57	YWRJ316T101M	Electrolytic 100 µF 16V
C58	YF400102XKT	Ceramic 1000 pF
C59	YF400101CHJT	Ceramic 100 pF
C60	YF400820CHJT	Ceramic 82 pF
C61	YF400102XKT	Ceramic 1000 pF
C62	YF400201CHJT	Ceramic 200 pF
C63	YF400151CHJT	Ceramic 150 pF
C64	YF400102XKT	Ceramic 1000 pF
C65	YW400161CHJT	Ceramic 160 pF
C66	YF400301CHJT	Ceramic 300 pF
C67	YWRJ316T101M	Electrolytic 100 µF 16V
C68	YWRJ316T100M	Electrolytic 10 µF 16V
C69	YF400104FZT	Ceramic 0.1 µF
C70	YWRJ316T100M	Electrolytic 10 µF 16V
C71,72	YF400180CHJT	Ceramic 18 pF
C73	YF400560CHJT	Ceramic 56 pF
C74	YWRJ36T101M	Electrolytic 100 µF 6.3V
C75	YF400120CHJT	Ceramic 12 pF
C76	YF400104FZT	Ceramic 0.1 µF
C77	YWRJ350T4R7M	Electrolytic 4.7 µF 50V
C78,79	YWRJ316T100M	Electrolytic 10 µF 16V
C81	YF400224FZT	Ceramic 0.22 F
C82	YF400271CHJT	Ceramic 270 pF
C83	YF400270CHJT	Ceramic 27 pF
C84	YWRJ316T470M	Electrolytic 47 µF 16V
C85	YF400100CHJT	Ceramic 10 pF
C86	YWRJ310T101M	Electrolytic 100 µF 10V
C87	YWRJ316T470M	Electrolytic 47 µF 16V
C88	YWRJ316T101M	Electrolytic 100 µF 16V
C89,90	YWRJP10V220M	Electrolytic 22 µF 10V
C91	YF400020CHDT	Ceramic 2 pF
C92	YWRJ36T101M	Electrolytic 100 µF 6.3V
C93	YF400020CHDT	Ceramic 2 pF
C94	YWRJ36T101M	Electrolytic 100 µF 6.3V
C95	YF400104FZT	Ceramic 0.1 µF
C201	YWRJ310T101M	Electrolytic 100 µF 10V
C202	YF400220CHJT	Ceramic 22 pF
C203	YWRJ316T470M	Electrolytic 47 µF 16V
C204	YWRJP10V220M	Electrolytic 22 µF 10V
C205	YF400102XKT	Ceramic 1000 pF
C206	YF400820CHJT	Ceramic 82 pF
C209	YF400102XKT	Ceramic 1000 pF
C210	YF400201CHJT	Ceramic 200 pF
C211	YF400151CHJT	Ceramic 150 pF
C214	YF400102XKT	Ceramic 1000 pF
C215	YW400161CHJT	Ceramic 160 pF
C216	YF400301CHJT	Ceramic 300 pF
C220	YWRJ310T101M	Electrolytic 100 µF 10V
C221	YWRJ316T101M	Electrolytic 100 µF 16V
C222	YWRJ316T100M	Electrolytic 10 µF 16V
C223,224	YF400180CHJT	Ceramic 18 pF
C225	YWRJ316T100M	Electrolytic 10 µF 16V
C227	YF400560CHJT	Ceramic 56 pF

REF.NO.	PART NO.	DESCRIPTION	
C229	YWRJ36T101M	Electrolytic	100 µF 6.3V
C230	YF400104FZT	Ceramic	0.1 µF
C231	YF400120CHJT	Ceramic	12 pF
C232	YWRJ350T4R7M	Electrolytic	4.7 µF 50V
C233,234	YWRJ316T100M	Electrolytic	10 µF 16V
C235	YF400224FZT	Ceramic	0.22 µF
C236	YF400270CHJT	Ceramic	27 pF
C237	YF400100CHJT	Ceramic	10 pF
C238	YWRJ310T101M	Electrolytic	100 µF 10V
C239	YWRJ316T470M	Electrolytic	47 µF 16V
C240	YWRJP10V220M	Electrolytic	22 µF 10V
C241	YWRJ316T101M	Electrolytic	100 µF 16V
C242	YF400020CHDT	Ceramic	2 pF
C243,244	YWRJ36T101M	Electrolytic	100 µF 6.3
C245,246	YF400104FZT	Ceramic	0.1 µF
C247	YWRJ316T470M	Electrolytic	47 µF 16V
C248	YF400101CHJT	Ceramic	100 pF
C251	YWRJ316T101M	Electrolytic	100 µF 16V
C252,253	YF400104FZT	Ceramic	0.1 µF
C300	YF400220CHJT	Ceramic	22 pF
C301	YF400181CHJT	Ceramic	180 pF
C302	YF400151CHJT	Ceramic	150 pF
C303	YF400220CHJT	Ceramic	22 pF
C304	YF400181CHJT	Ceramic	180 pF
C305	YF400151CHJT	Ceramic	150 pF
C306	YF400220CHJT	Ceramic	22 pF
C307	YF400181CHJT	Ceramic	180 pF
C308	YF400151CHJT	Ceramic	150 pF
C310	YF400104FZT	Ceramic	0.1 µF
C401	YWRJ310T101M	Electrolytic	100 µF 10V
C402	YF400220CHJT	Ceramic	22 pF
C403	YWRJ316T470M	Electrolytic	47 µF 16V
C404	YWRJP10V220M	Electrolytic	22 µF 10V
C405	YF400102XKT	Ceramic	1000 pF
C406	YF400820CHJT	Ceramic	82 pF
C409	YF400102XKT	Ceramic	1000 pF
C410	YF400201CHJT	Ceramic	200 pF
C411	YF400151CHJT	Ceramic	150 pF
C414	YF400102XKT	Ceramic	1000 pF
C415	YW400161CHJT	Ceramic	160 pF
C416	YF400301CHJT	Ceramic	300 pF
C420	YWRJ310T101M	Electrolytic	100 µF 10V
C421	YWRJ316T101M	Electrolytic	100 µF 16V
C422	YWRJ316T100M	Electrolytic	10 µF 16V
C423,424	YF400180CHJT	Ceramic	18 pF
C425	YWRJ316T100M	Electrolytic	10 µF 16V
C427	YF400560CHJT	Ceramic	56 pF
C429	YWRJ36T101M	Electrolytic	100 µF 6.3V
C430	YF400104FZT	Ceramic	0.1 µF
C431	YF400120CHJT	Ceramic	12 pF
C432	YWRJ350T4R7M	Electrolytic	4.7 µF 50V
C433,434	YWRJ316T100M	Electrolytic	10 µF 16V
C435	YF400224FZT	Ceramic	0.22 F
C436	YF400270CHJT	Ceramic	27 pF
C437	YF400100CHJT	Ceramic	10 pF

REF.NO.	PART NO.	DESCRIPTION	
C438	YWRJ310T101M	Electrolytic	100 µF 10V
C439	YWRJ316T470M	Electrolytic	47 µF 16V
C440	YWRJP10V220M	Electrolytic	22 µF 10V
C441	YWRJ316T101M	Electrolytic	100 µF 16V
C442	YF400020CHDT	Ceramic	2 pF
C443,444	YWRJ36T101M	Electrolytic	100 µF 6.3V
C445,448	YF400104FZT	Ceramic	0.1 µF
C449	YWRJ316T470M	Electrolytic	47 µF 16V
C450	YF400101CHJT	Ceramic	100 pF
C451	YWRJ316T101M	Electrolytic	100 µF 16V
C452,453	YF400104FZT	Ceramic	0.1 µF
C501	YWRJ316T470M	Electrolytic	47 µF 16V
C502	YF400220CHJT	Ceramic	22 pF
C503	YF400150CHJT	Ceramic	15 pF
C505	YWRJ36T101M	Electrolytic	100 µF 6.3V
C506	YWRJ316T220M	Electrolytic	22 µF 16V
C507	YWRJ316T101M	Electrolytic	100 µF 16V
C508	YF400020CHDT	Ceramic	2 pF
C509,510	YWRJ36T101M	Electrolytic	100 µF 6.3V
C511	YWRJ36T102M	Electrolytic	1000 µF 6.3V
C512	YF400150CHJT	Ceramic	15 pF
C601	YWRJ316T470M	Electrolytic	47 µF 16V
C602	YF400103XKT	Ceramic	0.01 µF
C603	YF400104FZT	Ceramic	0.1 µF
C604	YF400151CHJT	Ceramic	150 pF
C605	YF400104FZT	Ceramic	0.1 µF
C606	YF400390CHJT	Ceramic	39 pF
C607	YWRJ316T100M	Electrolytic	10 µF 16V
C608	YF400104FZT	Ceramic	0.1 µF
C609	YF400560CHJT	Ceramic	56 pF
C610	YWRJ316T101M	Electrolytic	100 µF 16V
C611	YWRJ310T101M	Electrolytic	100 µF 10V
C612	YWRJ316T220M	Electrolytic	22 µF 16V
C613	YWRJ316T101M	Electrolytic	100 µF 16V
C614	YF400020CHDT	Ceramic	2 pF
C615,616	YWRJ36T101M	Electrolytic	100 µF 6.3V
C617	YWRJ36T102M	Electrolytic	1000 µF 6.3V
C622	YF400104FZT	Ceramic	0.1 µF
C623	YWRJP16V100M	Electrolytic	10 µF 16V
C624	YF400150CHJT	Ceramic	15 pF
C625	YF400104FZT	Ceramic	0.1 µF
C701	YWRJ316T101M	Electrolytic	100 µF 16V
C702	YF400104FZT	Ceramic	0.1 µF
L1	YWNL32470J	Coil	47 µH
L2	YWNL322R7J	Coil	2.7 µH
L3	YWNL32470J	Coil	47µH
L4	YWNL324R7J	Coil	4.7 µH
L5	YWHP054SZ	Coil	
L201	YWNL324R7J	Coil	4.7 µH
L202	YWNL32470J	Coil	47 µH
L203	YWNL322R7J	Coil	2.7 µH
L401	YWNL324R7J	Coil	4.7 µH
L402	YWNL32470J	Coil	47 µH
L403	YWNL322R7J	Coil	2.7 µH
L501,601	YWNL324R7J	Coil	4.7 µH

REF.NO.	PART NO.	DESCRIPTION
L602	YWNL328R2J	Coil 8.2 µH
CN5	YW530141410	14-pin Connector
CN7	YW530141510	15-pin Connector
CN9	YW530140310	3-pin Connector
CN11	YW530140810	8-pin Connector
CN12	YW530141210	12-pin Connector
CN13	YW530141310	13-pin Connector
CN15	YW530140910	9-pin Connector
CN1	YWB4BEH	4-pin Connector
CN2	YWB5BEH	5-pin Connector
CN3	YWB6BEH	6-pin Connector
CN4	YWB3BEH	3-pin Connector
CN6	YW530140410	4-pin Connector
CN8	YW530141010	10-pin Connector
CN10	YW530140510	5-pin Connector
CN14	YW530140410	4-pin Connector
E1-4	YWSN5053	Holder
TP1-14	YW32BM7R5	Test-pin
TP201-203	YW32BM7R5	Test-pin
TP205,401	YW32BM7R5	Test-pin
TP402,403	YW32BM7R5	Test-pin
TP405,501	YW32BM7R5	Test-pin
TP502,601	YW32BM7R5	Test-pin
TP602	YW32BM7R5	Test-pin

REF.NO.	PART NO.	DESCRIPTION
ACCESSORY PARTS/PACKAGING PARTS		
CN110	YFCNR-1204P	4-pin Socket
M40	YWV7QA3242A2	Decoration Plate
M41	YWB350-HM01	Mounting Angle
M42	YWV5PA0065A4	Rack Components
M43	YWV8QA3296BN	Operating Instructions
M44	XZB35X50C05	Polyethylene Bag for WV-RC550/AB
	YWPE35X50C05	Polyethylene Bag for WV-RC550/G
M45	YWT050803	Polyethylene Bag
M46	XZB26X40C05	Polyethylene Bag for WV-RC550/AB
	YWPE26X40C05	Polyethylene Bag for WV-RC550/G
M47	XZB55X50C1	Polyethylene Bag
M48	YWT20X35C03	Polyethylene Bag
M49	YWT15X20C03	Polyethylene Bag
M50	YWV9CA2281AN	Packaging Assy
M51	YWV8FA0200A4	Packaging Label for WV-RC550/B

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ORDER NO. AVS9407893P8

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Parts Change Notice

Subject : Improving Performance

Model No. WV-RC550

Effective From : June, 1994

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use them when ordering parts.

Reason for Change + The circled item indicates the reason. If no marking, see the Notes in the bottom column.

(1) Improve performance	
2. Change of material or dimension	
3. To meet approved specification	
4. Standardization	
5. Addition	
6. Deletion	
7. Correction	
8. Other	

Interchangeability Code ++ The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

Parts	Set Production	
A Original → New	Early → Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
B Original → New	Early → Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
C Original → New	Early → Late	New parts only may be used in early or late production sets. Stock new parts.
D Original → New	Early → Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
(E) Other		

Part Number Parts identified by ▮ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts. Parts identified by o mark are new parts used from this Parts Change Notice.

Ref No.	Original Part No.	New Part No.	Notes (+, ++)	Part Name & Descriptions	Price
VIDEO BOARD					
Q203,Q204	2SD601-RS	2SC2404-CD	1, E	Transistor	

File this Parts Change Notice with your copy of the Service Manual.

Panasonic

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